AUTHOR INDEX

Abbas, J. 1019
Abboud, K. A. 2409
Abdallah, O. M. 281, 3248
Abdallah, R. M. 1263
Abdel-Kader, M. A. 1749
Abdel-Mogib, M. 268, 2202, 3227, 3528
Abdel-Salam, N. A. 1749
Abe, F. 1737, 3473
Abe, K. 960
Abou-Elzahab, M. 268, 3528
Abou-Shoer, M. 2483
Abramowski, Z. 1827
Abrams, G. D. 2885
Abrams, S. R. 2885
Achenbach, H. 1959, 2219, 2759
Acton, N. 3530
Adaay, M. H. 2000
Addae-Mensah, I. 2759
Adell, J. 1509
Adesanya, S. A. 773, 2621
Adesina, S. K. 839
Adinolfi, M. 284, 3244
Afza, N. 1982
Agarwal, S. K. 634, 1771
Agata, I. 2447
Agrawal, A. 1229
Agrawal, P. K. 1980, 2089
Agudo, M. 2059
Aguiar, Z. E. 2871
Ah-Sing, E. 1989
Ahmad, V. U. 278, 2169, 2493, 3081
Ahmad, Z. A. 3525, 3572
Ahmed, A. A. 665, 1751
Ahmed, D. 1293
Akihisa, T. 1219, 1271
Al-Hajar, A. S. M. 3227
Al-Said, M. S. 107, 297, 671, 3211
Alam, M. 2848
Alam, S. S. 2627
Alani, S. R. 2047
Alberdi, M. 759
Albersheim, P. 2105
Albinati, A. 923
Alcaraz, M. J. 1267
Alcock, N. W. 1835
Alegrio, L. V. 2359
Ali, A. A. 281, 665, 3248
Ali, M. 3513
Aliotta, G. 2319
Alisi, C. 45, 2045
Allen, J. M. 1529
Almeida, J. F. 2206
Alonso, M. C. A. 557
Alvarez-Manzaneda R., E. J. 2617
Aly, Y. 1967
Amber, A. R. 2493
Amer, M. E. 1263, 1749
Ames, J. M. 1817
Amiani, H. 421
Amico, V. 215
Amiot, M.-J. 67
Amoke, P. 421
Anaya, J. 2206
Andary, C. 288
Andersen, J. V. 127
Andersen, O. M. 495
Anderson, J. W. 51
Andriantsiferana, M. 1996
Angelini, R. 2045
Angenot, L. 2221
Anjaneyulu, V. 1471, 1695
Ansari, A. I. 341
Aparecida Dias, D. 1441
Aplin, R. T. 2949, 3047
Appendino, G. 849
Aquila, T. 3244
Aquino, R. 199
Ara, I. 1177
Arao, T. 805
Argandona, V. H. 419
Arigayo, S. 1675
Arnason, J. T. 1373
Arndt, R. 3015
Arnold, N. A. 2763
Arnone, A. 923, 2803
Arriaga-Giner, F. J. 3493
Arrigoni, O. 715
Arul, J. 1276
Asada, Y. 483, 1859
Asakawa, Y. 1533, 1661, 2507, 3377, 3383, 3415
Asen, S. 2531
Asensi, M. C. 3093
Asheervadam, Y. 957
Assante, G. 923, 2803
Atilan, N. 649
Atta-ur-Rahman 675, 1293, 2848, 3221
Audisio, G. 165
Avato, P. 165
Avilan, L. 1349
Ayafor, J. F. 231, 585, 1517
Ayoub, M. T. 2000

Baba, K. 221
Babu, J. M. 3237
Babu, Y. N. 299
Badar, Y. 1982
Bagchi, A. 1769
Bahuguna, R. P. 2511
Bahuguna, S. 575
Bai, L. 3503
Baker, J. E. 345
Baker, R. A. 283
Baldi, B. G. 751
Balza, F. 1827, 3523
Bandara, B. M. R. 1073, 2783
Banerjee, S. 7
Banerji, A. 3039, 3155
Bankova, V. S. 871
Bano, S. 2169
Banthorpe, D. V. 1631, 1847, 2109, 2541, 3003
Bar-Nun, N. 1369
Barakat, H. H. 1755, 3201
Barber, M. J. 2261

Barbera, O. 1513, 2163
Barbier, M. 3240
Barbosa-Filho, J. M. 1991, 2209, 3477
Barciszewska, M. 2039
Barciszewski, J. 2039
Barik, B. R. 3155
Barlow, R. M. 1825
Barone, G. 3244
Barrera, J. B. 2520
Barrero, A. F. 161, 1975, 2617, 2863
Barron, A. 161
Barron, L. J. R. 3301
Bartkowiak, S. 2927
Bartulin, J. 1254
Basabe, P. 651
Basak, A. 3437
Bates, R. B. 3229
Bauer, H. 1363
Bauer, R. 505
Bauereiss, P. 1959, 2219
Baumann, T. W. 2667
Bayer, Th. 2373
Bazzocchi, I. L. 173
Beauvais, F. 2565
Becchi, M. 1539
Becerra, J. 1254
Becerril, J. M. 695
Becker, H. 1261
Beek, T. A. van 1909
Beevers, H. 1809
Begley, M. J. 941
Begum, S. 1187, 3143
Bejarano, E. R. 1623
Bekele, A. 1897
Bell, E. A. 2227
Bellino, A. 1976
Belofsky, G. 1601
Benn, M. H. 919, 2369
Bennett, G. J. 967
Bennett, R. D. 1717, 2777
Benson, M. 3443
Benson, M. E. 2799
Benz, T. 745
Bergendorff, O. 2501
Bergman, J. 3547
Bergmann, P. 3246
Berhow, M. A. 1627
Berkaloff, C. 1137
Bermejo, J. B. 2173
Bernard, C.-B. 1373
Berry, R. E. 283
Bert, M. 71
Berthold, H. 1389
Besson, V. 1379
Bestmann, H.-J. 2183
Bewley, J. D. 363
Bhakuni, D. S. 575
Bhargava, S. 1258
Bhaskar, M. U. 3545
Bhat, V. S. 203
Bhatt, R. K. 2419
Bhattacharyya, J. 1985
Bhutani, K. K. 3513
Bianchi, G. 165
Bianchi, S. 1379
Bilton, J. N. 2627
Bilyard, H. J. 2109
Binder, R. G. 2799
Biniyaz, T. 3127
Bishop, S. H. 3291
Bisset, N. G. 1553, 2221
Bittner, M. 271, 1887, 2867
Bjork, K. 3015
Bjornland, T. 3347
Blaney, W. M. 1069
Blasko, G. 177, 1555, 3536, 3569
Blunden, G. 3171
Bocchio, F. 2501
Bodel, M. 2783
Bodo, B. 1491, 1557, 2711
Bohlmann, F. 139, 271, 517, 527, 531, 543, 641, 843, 1119, 1149, 1155, 1433, 1653, 1887, 1937, 1943, 1949, 2737, 2741, 2745, 2867, 3097, 3103, 3105, 3231 3345, 3532
Bohm, B. A. 501
Bokel, M. 897, 1073, 1544
Boldt, P. E. 2741
Bolwell, G. P. 2540
Bonjouklian, R. 1565
Bordoloi, M. 2007
Borraccino, G. 715
Bors, W. 1589
Borstel, K. 1635
Bosetti, A. 1427
Bottini, A. T. 936, 1531
Bourgogne, V. 2345
Bowers, M. D. 1601
Bowles, D. J. 333
Bradbury, J. H. 3019
Bradow, J. M. 2315
Branco, I. 2173
Bravo, H. R. 447
Braz-Filho, R. 661, 2359, 2467
Bredenkamp, M. W. 263
Brenton, A. G. 2243
Bridson, D. 829
Brito Palma, F. M. S. 557
Britton, G. 2793
Broadway, R. M. 755
Brodelius, P. 1101, 2651
Brooks, C. J. W. 1631
Brophy, J. J. 1259
Brouillard, R. 3246
Brown, E. G. 2243, 2559
Brown, G. D. 2109, 3003
Brown, J. T. 1631, 1847
Bruemmer, J. H. 2901
Bruno, M. 1069, 2763, 3539
Bryant, J. A. 1339
Brzezinski, R. 1335
Bucholc, M. 2931
Buddrus, J. 3201
Bunyapraphatsara, N. 1555
Buonocore, V. 1307
Burch, L. R. 1313
Burden, R. S. 781, 1791
Burke, B. A. 654
Burton, G. 2514
Busch, E. 2127

Caballero, Ma C. 2206
Caballero, P. 3365
Calderon, J. S. 3526
Calligari Lopes, J. N. 1441
Cambie, R. C. 1675
Camou, F. A. 3229
Carda, M. 2505
Cardelle, M. 83

Cardenas, J. 561, 567, 1681
Cardini, F. 2793
Cardona, Ma. L. 1264
Caron, C. 1241
Carpani, G. 863
Carpita, N. C. 121
Carrano, L. 1307
Carreiras, M. C. 1453
Carriere, F. 1087
Carte, B. K. 2917
Carter, G. A. 1791
Cartier, G. 1759
Casadevall, E. 1137, 2097, 2349
Cassady, J. M. 2483
Castaneda, R. 265
Castedo, L. 83, 251, 1992, 2773
Castro, J. L. 83
Castro, M. A. 659
Castro, V. 139, 527, 939, 2415, 2727, 2737, 2741
Catalan, C. A. N. 1931, 2155
Cataldo, F. 647, 1417
Celaa, M. V. 3301
Cerda, C. M. 265
Cerda-Olmedo, E. 1623
Cerezo, A. S. 2937
Cerletti, P. 1025
Cesario, M. 1491
Chagvardieff, P. 1087
Chakraborty, C. K. 1778
Chakraborty, D. P. 677
Chamy, M. C. 571, 2844
Chan, J. A. 2917
Chan, K. L. 2857
Chan, S. L. 2303
Chang, C.-H. 595, 2823
Chang, C.-J. 2483
Chang, M. 1417
Chapman, D. J. 337
Chatterjee, A. 1233
Chatterjee, S. 1986
Chatterjee, T. P. 1778
Chaturvedi, K. 2197
Chaudhuri, P. K. 2002
Cheminat, A. 3246
Chen, C.-H. 1541, 2191
Chen, J. 3536
Chen, J. C. 1013
Chen, M.-T. 1280, 3574
Chen, X.-M. 2451
Chen, Y. 1163, 1774
Chen, Y.-J. 2873
Chen, Y.-Y. 2787
Cheng, J. 1774
Cheng, Y.-S. 1173, 3553
Cherif, A. 667
Chhabra, B. R. 639, 2093
Chiatante, D. 2243
Chin, M. 875, 2149, 2385, 2705
Chinchilla, R. 3093
Choudhary, M. I. 2848
Choudhury, A. K. 1553
Choy, J. B. 501
Christensen, L. P. 917, 2697
Chulia, A. J. 1759
Ciancia, M. 2937
Clancy, K. M. 765
Clardy, J. 73, 2827
Clarkson, J. R. 1259
Claudi, F. 849
Clifford, M. N. 829, 1989
Cline, E. I. 2621
Coddington, J. M. 1675
Cohen, J. D. 2539
Cojocaru, M. 579
Collinge, M. A. 1101
Conn, E. E. 817, 821
Conner, J. M. 3551
Connolly, J. D. 585, 1471, 1517, 2855
Constabel, C. P. 93
Cooke, D. T. 1791
Copaja, S. V. 447
Copeland, L. 57
Corcuera, L. J. 419, 1569
Cordell, G. A. 177, 1294, 1555, 2827, 2846, 3536, 3542, 3569
Corrales, F. 161
Corsaro, M. M. 284
Cosson, J. 71
Cosson, L. 2345
Coute, A. 2349
Couture, R. 1276
Crabb, T. A. 3171
Cravotto, G. 849
Crout, D. H. G. 1835
Cruz, N. B. de la 2269
Cubillo, L. 651
Cui, Y. 1774
Cumbes, Q. J. 1057
Cummins, I. 2063
Cutler, A. J. 323

D'Agostino, M. 1773
Da Silva, A. J. R. 1251
Da Silva, W. D. 661
Dagne, E. 1291, 1897, 3207
Dahlman, O. 3015
Dan, W. 189
Danieli, B. 859
Darvill, A. G. 2105
Das, A. K. 290
Das, B. 1233
Das, B. C. 1383
Das, C. 3039
Das, G. 1181
Das, N. P. 1099
Das, P. C. 1281
Das, S. 509
Dastlik, K. A. 1425, 3543
Dattee, Y. 1379
Daussant, J. 2921
Davies, D. D. 349
Davies, H. M. 1573
Davioud, E. 1383, 2675
Dawidar, A. M. 2202, 3227, 3528
Dawidar, E. M. 268
Dawson, J. C. 51
Dayrit, F. M. 1721
De A. Neto, F. R. 642
De Clerck, W. A. E. 319
De D. B. Lima, P. D. 642
De Fatima Agra, M. 1985
De Feo, V. 1773
De Mello, J. F. 199
De O. Godoy, R. L. 642
De Pascual Teresa, J. 183
De Silva, K. T. 3221
De Simone, F. 199, 1773

De Vicente, Y. 2807
Deepak, D. 3255
Del C. Lopez, J. 2735
Delaude, C. 1241
Delgado, G. 1483
Dell, B. 1871
Della Greca, M. 629, 2319
Deluca, M. E. 109
Dembitsky, V. M. 3341
Demuth, H. 3361
Derenne, S. 1137
Desai, H. K. 1561
Desjardins, A. E. 431, 2963
Deslandes, E. 71
Dev, V. 936, 1531
Devys, M. 3240
Dey, A. K. 3155
Dey, P. M. 2542
Dhar, K. L. 1998
Dhasmana, H. 2819
Dhillon, R. S. 639
Di Martino Rigano, V. 2891
Di Martino, C. 2891
Diaz, C. E. 1053
Diaz, J. G. 1649, 2520
Ding, Y. 2787
Dipierro, S. 715
Dirks, H. 2071
Dirr, H. W. 379
Djermanovic, M. 1765
Djermanovic, V. 1765
Doganca, S. 3561
Dominguez, X. A. 1149, 1959, 2727, 2871
Dommisse, E. M. 461
Dorado, M. M. 2617
Doss, R. P. 3311
Drawert, F. 3051
Drewes, S. E. 153, 263
Duah, F. K. 1967
Duangteraprecha, S. 881
Dubery, I. A. 379, 705
Dubois, M.-A. 3355
Dudan, G. 1767
Duddeck, H. 1560
Duke, S. O. 695
Dulson, J. 363
Dunn, J. E. 817, 821
Duranti, M. 1025
Dvorackova, S. 3217

Eagles, J. 499, 1891
Ebermann, R. 711
Egge, H. 3317
Eicher, T. 867
Einhoff, W. 355
Ejiri, S. 359
El-Feraly, F. S. 107, 297
El-Kashoury, E. A. 1561
El-Mousallamy, A. M. D. 1755, 3201
Elliger, C. A. 3443
Ellis, B. E. 2085
Elsegood, C. L. 1871
Endo, K. 1495
Enoki, S. 499
Enzell, C. R. 3015
Esaka, M. 117, 2655
Esmirly, S. T. 3227
Espelie, K. E. 751
Esposito, S. 2891
Esquivel, B. 561, 567
Estebanes, L. 567
Estrada, D. M. 1417
Etse, J. T. 2489
Evans, D. E. 2559
Evans, W. C. 671, 3211
Evidente, A. 2603
Ewing, D. F. 775

Faizi, S. 1177, 2433
Fang, J.-M. 1173, 3553
Fatima, I. 2169
Faulkner, D. J. 2917
Favre-Bonvin, J. 1996
Fazlalizaheh, G. 3127
Federico, R. 45, 2045
Fellows, L. E. 965
Fenwick, G. R. 1252
Fernandes, J. B. 579
Fernandez Cirelli, A. 1645
Fernandez, I. 2405
Fernandez, J. 759, 1417
Fernandez, J. J. 647, 3365
Ferracini, V. L. 1463
Ferreira, A. G. 579
Ferreira, R. M. B. 349
Ferreres, F. 1901, 2141
Feucht, W. 1363
Fido, R. J. 2261
Fiebig, M. 3355
Filho, J. M. B. 1985
Finch, P. 1721
Fischer, N. H. 79, 1729, 2315, 2959
Fizza, K. 3081
Flament, P. 1379
Flath, R. A. 2799, 3311
Fleurence, J. 733
Fleuriet, A. 67
Fliniaux, M.-A. 2671
Flores, M. R. 2659
Floss, H. G. 2643
Fo, R. B. 239
Fog, E. 1527
Fogelman, M. 737
Fomum, Z. T. 2522
Fong, C. H. 1717
Foo, L. Y. 1237, 1743, 2477, 3185
Fookes, C. J. R. 1259
Ford, C. W. 393
Forlani, F. 45, 2045
Forster, P. G. 1425
Foulquier, M. 2345
Fourie, T. G. 2851
Fozdar, B. I. 2459
Fraga, B. M. 1053, 1649, 1851
Fraiz, S. V., Jr 239
Francke, W. 447, 2307
Franke, A. 3566
Franke, S. 447, 2307
Fraser, T. 3073
Fronczek, F. R. 79, 1729
Fronza, G. 1427
Fu, E. W. 1967
Fugmann, B. 3519
Fujieda, K. 1503
Fujimura, T. 636
Fujioka, N. 1855
Fujita, T. 1409, 1685
Fujiwara, Y. 3548

Fukami, R. 2499
Fukui, H. 117, 1873, 2655
Funk, C. 2651
Furber, M. 63
Furihata, K. 855, 2427
Furukawa, H. 3562
Furuya, T. 483, 1093, 1859, 2333, 3009, 3335

Gabetta, B. 859
Gadeschi, E. 2204
Gafner, F. 1256
Galal, A. 1967
Galeffi, C. 1550, 2807
Galensa, R. 663
Gallardo, A. 1417
Galle, A.-M. 2565
Gallon, J. R. 2539, 3579
Galons, H. 2345
Gambaro, V. 571, 2844
Gamou, R. 2989
Ganji, M. T. 1535
Ganzer, U. 543
Gao, F. 1463, 1749, 2409
Garbarino, J. A. 571, 2844
Garces, R. 2593, 2597
Garcez, F. R. 1251
Garcez, W. S. 1251
Garcia, B. 1264, 2405
Garcia, J. 1759, 2199, 2503
Garcia, J. M. 2597
Garcia-Carmona, F. 1321
Garcia-Grau, M. M. 1993
Garcia-Ochoa, S. 1267
Gardner, H. W. 431
Garg, H. S. 2819
Garg, N. 2913
Garg, S. N. 634, 1771
Gariboldi, P. 849
Garnier, J. 308
Garrido, N. M. 183
Garzillo, A. M. 1307
Gautam, V. K. 639
Geiger, H. 867, 897
Gellert, M. 1560
Gemel, J. 1813
Georgatsos, J. G. 385, 2587
Gerlach, D. 157
Geuns, J. M. C. 319
Gey, C. 2199
Ghisalberti, E. L. 1425, 1871, 3543
Ghogomu Tih, R. 1557
Ghosal, S. 611, 2535, 3193
Ghosh, D. 2243
Giannakouros, T. 2587
Gil, G. 1087
Gil, R. R. 1925, 2841
Gill, M. 2647
Gimenez, A. 2647
Giordano, O. S. 1537
Given, P. H. 751
Glimelius, K. 3015
Gluchoff-Fiasson, K. 2471
Gnecco, S. 1254
Goad, L. J. 781
Goedken, V. L. 1441, 1925, 1931
Goldner, W. 1809
Gollapudi, S. R. 3556
Gomez, F. 3526
Gonda, R. 2609
Gonzalez, A. G. 173, 647, 2173, 2520, 2871
Gonzalez, C. M. 2514
Gonzalez, P. 1851
Gordaliza, M. 659, 2717
Gorunvic, M. 1765
Goss, M. J. 1785
Gosselin, C. 1276
Goto, S. 193
Gottlieb, H. E. 579, 3577
Gottlieb, O. R. 579, 661, 1991, 2209, 2355, 2359, 2545, 3477, 3577
Gould, S. J. 3311
Goyal, R. 2093
Graftieaux, A. 1241
Grancha, F. J. 2405
Grande, M. 1955, 2206, 3093
Gray, A. I. 273, 2489 3551
Gray, D. O. 673
Greger, H. 2363, 2687
Gregorio, M. V. M. 1835
Grenz, M. 1119, 1937, 2723, 3231
Gretz, M. R. 2601
Griffin, W. J. 3171
Grimalt, J. O. 1167
Gros, E. G. 109, 2514
Gross, D. 1007
Gross, J. 1959
Grout, R. J. 671, 3211
Grover, A. 701
Grunwald, C. 465
Gueho, J. 2323
Guerne, P. 3246
Guevara, A. P. 1721
Guha, K. P. 675
Guilhen, J. 1491
Guillermo, R. 1851
Gupta, D. 947, 1197
Gusta, L. V. 2885
Gutierrez, A. B. 1441, 1925, 1931, 2155, 2841

Haag, A. 2183
Habermehl, G. G. 2311
Habib, A.-A. 2483
Hadjianghelu, A. 385
Haegi, L. 1943
Hafeez, F. 1187
Hafez, S. 843
Halliwell, B. 3265
Hallock, Y. F. 73
Halmer, P. 371
Hamburger, M. 1767, 2323
Hammer, B. C. 3019
Hamon, J. 1298, 2675
Han, B. H. 2857
Han, S. W. 3281
Haner, A. 2651
Hanley, A. B. 1252
Hanus, V. 1779, 3217
Harborne, J. B. 499, 679, 963, 964, 965, 1786, 1891, 2227, 2228, 2875, 3251
Harris, F. M. 2243
Harrison, L. J. 1261, 1533
Hartmann, T. 1635
Harwood, J. 3251
Harwood, J. L. 399, 2053, 3295
Hase, T. 1479, 2393, 2499
Hasegawa, S. 1717, 2777
Hashemi-Nejad, S. M. 1119

Hashidoko, Y. 425
Hashimoto, T. 1077, 3377
Hatam, N. A. R. 1268
Hatanaka, A. 407, 636
Hatano, T. 2447
Hatcher, P. G. 1167, 1395
Hattori, M. 595, 1289, 2823
Haugan, J. A. 2797
Haughan, P. A. 781
Hawkins, D. J. 1573
Hayashi, K. 3373
Hayek, E. W. H. 2229
Hayman, A. R. 673
He, C.-H. 3131
He, Z.-D. 3131
Hegde, S. P. 2897
Heide, L. 1873, 2643
Heijden, R. van der 2981
Heilemann, J. 2071
Heitz, A. 288
Heluani, C. S. de 1931
Henderson, D. A. 591
Henderson, R. J. 1355, 2937
Hennessy, D. 489
Herman, Z. 1717, 2777
Hernandez, H. P. 2959
Hernandez, J. 1483
Hernandez, J. D. 265, 1207, 2397
Hernandez, J. M. 651
Hernandez, L. M. 561
Hernandez, M. G. 1053, 1649, 1851
Herrmann, K. 663
Herz, W. 1284, 1441, 1925, 1931, 2155, 2841
Hess, D. 897
Hesse, M. 1963
Heubl, G. 3355
Hewlett, M. J. 941
Hidaka, M. 2701
Hikichi, K. 2145
Hikino, H. 1495
Hildebrand, D. F. 411
Hilgenberg, W. 2571
Hindorf, H. 3317
Hintz, M. 1569
Hirata, T. 3331
Hirayama, F. 1133
Hirotani, M. 1093
Ho, F.-C. 147
Hofer, O. 2363, 2687
Hoffmann, B. 247
Hoffmann, J. J. 3229
Holzl, J. 247
Honda, N. K. 1251
Honda, T. 1507
Hong, Z. 57
Hook, I. 489
Hope, H. 936
Horgan, R. 1313
Horie, T. 2869
Horiuchi, S. 2285
Horowitz, R. M. 2531
Hostettmann, K. 963, 1767 2323
Houghton, P. J. 1553, 2693
Hradil, C. M. 73
Hsieh, T. C.-Y. 2959
Hsu, A.-F. 1879
Hsu, K.-C. 1173, 3553
Hu, W. 1963
Hu, Z. 1252
Hua, S. 1774
Huang Hao 2753
Huang Qing 553
Huang, L.-S. 465
Huang, S.-C. 1280, 3574
Huang, X.-L. 3542
Huang, Y. 3542
Huang, Z. 1467, 3043
Huet, J.-C. 2565
Hufford, C. D. 107
Huh, D. H. 719
Humphreys, D. J. 1825
Husain, A. 2089
Husek, A. 3217
Husic, H. D. 719
Husson, H.-P. 1383, 2675
Hwang, J. F. 1245
Hwang, T.-H. 891

Iacobellis, N. S. 2603
Ichihara, T. 851, 1691, 2423
Ichihara, Y. 1667
Ichino, K. 626, 952, 955, 1905, 2516
Iinuma, M. 295, 553, 681, 2518, 2527, 2811
Ikegami, F. 881, 958, 2285
Ikeshiro, T. 3139
Ikura, M. 2145
Ikuta, A. 2663
Ilag, L. L. 2269
Ilg, M. 745
Imamura, Y. 1215
Imre, S. 3404
Inada, A. 2527
Inamine, G. S. 345
Ingham, J. L. 901, 2079
Iniesta-Sanmartin, E. 1613
Inoshiri, S. 883
Inoue, K. 1409, 1413, 2971, 3503
Inoue, M. 3562
Inoué, T. 2329
Inouye, H. 1409, 1413, 2971
Iqbal, Z. 2848
Ireland, R. J. 2275
Irino, N. 2331
Ishihara, M. 636
Ishimaru, K. 3507
Ishimatsu, M. 3179
Iskric, S. 2949
Ismail, N. 2493
Ismaili, A. 2035
Isogai, A. 855, 2427
Ito, C. 3562
Ito, K. 626, 952, 1905, 2516
Ito, M. 3421
Itokawa, H. 1667, 2663, 3248, 3465
Itoo, S. 1003
Iwagawa, T. 2393
Iwagoe, K. 3548
Iwashita, T. 1479

Jackson, M. T. 1783
Jacquin-Dubreuil, A. 2345, 2671
Jaensch, M. 3497
Jaganmohan Rao, L. 3031
Jagannadhal Rao, K. V. 2031
Jain, A. 999
Jain, D. C. 644

Jain, R. 591
Jain, S. 1258
Jairaj, M. A. 276
Jakupovic, J. 139, 268, 271, 527, 543, 641, 843, 939, 1119, 1149, 1263, 1887, 1937, 1943, 2202, 2415 2723, 2727, 2737, 2741, 2867, 3227, 3231, 3497, 3528
Jancic, R. 260
Jangwan, J. S. 2511
Janistyn, B. 329
Janovitz-Klapp, A. 2903
Janssen, R. H. A. M. 2833
Janzen, S. 1601
Jaroszewski, J. W. 127, 1527
Jay, M. 2471, 3035
Jayaprakasam, R. 1767
Jayasinghe, L. 1073, 2783
Jefferies, P. R. 1425, 3543
Jensen, P. S. 623
Jensen, S. R. 97, 3055, 3059, 3361
Jensen, U. 1389
Jeremic, D. 1763
Jha, H. C. 3317
Jhingran, A. G. 2647
Jia, Z.-J. 3395
Jian, F. 189
Jimenez, C. 1992, 2773
Jimenez, I. A. 173
Jimenez, M. J. 1267
Jimeno, M. L. 1685
Jin Qiduan 1273
Jin, Z. X. 2177
Joachimiak, A. 2039
Johns, R. B. 811
Johnson, K. J. R. 3311
Jolad, S. D. 3229
Jondiko, I. J. O. 3159
Jones, A. L. 399, 2053
Jones, G. J. 811
Jong, T.-T. 245, 1280, 2873
Jordis, U. 2229
Jorge, Z. D. 2204
Joseph-Nathan, P. 265, 1207, 2397
Joshi, B. S. 1561
Joshi, H. V. 3301
Joshi, P. C. 1281
Joshi, T. 1287, 2529
Joshi, V. S. 203
Jouin, D. 1401
Ju-ichi, M. 3562
Julkunen-Tiitto, R. 2115
Juneja, R. K. 1913
Junior, V. N. 2497
Jurenitsch, J. 825

Kachroo, P. K. 3389
Kaga, T. 2499
Kagamimori, S. 439
Kahn, V. 41
Kaiya, T. 2511
Kaji, M. 1365
Kajimoto, T. 1761, 2701
Kajiwara, T. 407, 636
Kalidhar, S. B. 2455, 3459
Kalinowska, M. 2931
Kalsi, P. S. 639, 1091, 2093
Kamaruzzman, 677
Kan, C. 1383, 2675
Kanabus, J. 3271
Kanari, M. 1271, 2609
Kaniuga, Z. 1813
Kaniwa, H. 855, 2427
Kaouadji, M. 1759, 3191
Kapil, R. S. 943
Kaplan, M. A. C. 3577
Kapoor, H. C. 701
Kapoor, R. 1033
Kapor, S. 133, 260
Kar, A. 1487
Karam, G. A. 3291
Karchesy, J. J. 1237, 1743, 3185
Karunaratne, V. 1073, 1278, 2783
Kasai, R. 1711, 1855
Kashiwada, Y. 891, 1003
Kasuya, M. 439
Katoh, T. 439
Katsuhara, T. 2385
Katsumata, T. 359
Kaur, R. 2993
Kawaguchi, A. 2341
Kawaguchi, K. 1093
Kawahara, N. 1546
Kawai, K. 929
Kawai, K.-I. 655, 1546
Kawai, T. 407, 636
Kawamura, Y. 2869
Kawano, S. 439
Kawata, Y. 2823
Keil, U. 2281
Keith-Lucas, D. M. 2005
Kellard, B. 1989
Kenfield, D. S. 73
Keshavarz-Shokri, A. 3556
Khalid, S. A. 1560
Khalifa, S. I. 107, 297
Khalilullah, M. 957
Khan, A. Q. 1193, 1982, 2859
Khan, M. A. 273
Khan, R. M. A. 305
Khan, S. A. 2459
Khare, A. 1211, 3255
Khare, M. P. 1211, 3255
Khazraji, A. T. 2000
Khor, H. T. 2303
Khumtaveeporn, K. 2463
Khuroo, M. A. 3389
Kiefer, L. L. 2105
Kijjoa, A. 1284
Kim, J. 1225
Kim, J. H. 1503
King, R. M. 139, 517, 531, 543, 641, 939, 1937, 1943, 3497
Kinghorn, A. D. 1225
Kinney, A. J. 2635
Kinoshita, T. 147
Kintzinger, J. P. 2459
Kirk, O. 97
Kisiel, W. 2403
Kiyosawa, S. 3548
Kizawa, Y. 1843
Klamann, J.-D. 3519
Klein, E. 2127
Kleis, R. 1909
Knight, D. W. 941
Kobashi, K. 1289
Kobayashi, H. 3483
Koblicova, Z. 1779
Kohda, H. 1855

Kohlmunzer, S. 2403
Kohnert, R. L. 3311
Kohno, J. 1077
Kojima, H. 1667, 1703
Kojima, M. 2613
Kollmannsberger, H. 3051
Kolodziej, H. 3487
Komai, K. 1883
Kondo, T. 2613
Konishi, T. 3548
Konno, H. 2583
Konno, K. 1133
Konosu, S. 625
Korszen-Pilecka, I. 415
Kosasi, S. 2439
Kosemura, S. 3421
Koshimizu, K. 1365
Koshino, H. 771
Koyama, K. 1605
Kozawa, M. 211
Kozuka, H. 439
Kraus, W. 1073
Kraus, W. 1544, 2783
Kristie, D. 2577
Kruk, C. 2833
Krupadanam, G. K. D. 913
Kubelka, W. 825
Kubo, H. 958, 2533
Kubo, N. 513, 3063
Kubota, K. 117, 2655
Kuchhal, N. K. 2909
Kulanthaivel, P. 1521
Kuligowska, E. 1585
Kulkarni, M. M. 203
Kulshreshtha, D. K. 2877
Kumagai, S. 3335
Kumar, R. J. 913
Kumar, V. 1278, 3242
Kumar, Y. 611, 3193
Kummer, M. 1007
Kundu, A. B. 3155
Kundu, G. C. 725
Kundu, S. 1769
Kuo, Y.-H. 1541
Kuoh, C.-S. 292
Kurihara, T. 2285
Kurosaki, F. 1843, 2989
Kurosawa, E. 2145
Kursell, A. V. 719
Kusmenoglu, S. 2601
Kutchan, T. M. 1083
Kuwajima, H. 1409, 1413, 2971

La Barre, S. 1298
Laanest, L. 469
Laas, H. J. 867
Labadie, R. P. 2439
Labarre, S. 667
Labidalle, S. 2345
Lacan, G. 2949, 3047
Lai, J.-S. 2873
Lai, Y.-K. 1579
Lakhani, S. 1033
Laks, P. E. 87
Lakshmi, V. 943
Lalaguna, F. 2059
Lam, J. 917, 1373, 2697
Lamnaouer, D. 2711
Lampasona, M. P. de 1931
Lancaster, J. E. 455, 461
Langebartels, C. 1589
Langlois, N. 1298
Lanzetta, R. 284, 3244
Lapierre, C. 1401
Lappin, G. J. 1631
Largeau, C. 1137
Lauriere, C. 1019
Lavaitte, S. 2199
Lavaud, C. 1379
Law, K.-H. 1099
Le Men-Olivier, L. 667, 1241, 1379
Le Roux, P. F. 705
Lecommandeur, D. 2921
Lederkremer, R. M. de 1645
Lee, A. Y.-M. 501
Lee, E. 1835
Lee, H.-H. 967
Lee, J. B. 1825
Lee, K.-H. 1245, 1541, 2191
Lee, S. H. 3469
Lee, S. P. 2857
Lee, T.-J. 1541
Leete, E. 3325
Legname, P. R. 2155
Lehmann, L. 1119
Leistner, E. 1381
Leitao Filho, H. F. L. 2497
Lenton, J. R. 781
Leonowicz, A. 415
Leou, S.-P. 615
Lerch, H. E., III 1395
Levy, A. 795
Lewer, P. 2949
Lewis, J. A. 1252
Ley, S. V. 1069
Li Yong Hua 1675
Li, J. 3564
Li, X.-C. 3131
Li, Y. 3395
Li, Z.-C. 2255
Liaaen-Jensen, S. 2797, 3347
Liddell, J. R. 3532
Lim-Sylianco, C. Y. 1721
Lin, C.-C. 595, 2823
Lin, F. 1967
Lin, J.-H. 621
Lin, L.-Z. 177, 1294, 2827, 2846, 3542
Linscheild, M. 3201
Liou, M.-J. 292, 2873
Liptak, A. 2379
Liu, K. C.-S. 2813
Liu, Y.-L. 3569
Lobo, A. M. 1685
Loewus, F. A. 751
Lontsi, D. 231
Lopez, I. 3523
Lopez, J. L. 2863
Lopez, S. 251
Lotter, H. 3404
Lousberg, R. J. J. Ch. 2833
Loyola-Vargas, V. M. 2659
Lu, S.-T. 615, 1245, 2191
Ludwig-Muller, J. 2571
Luis, F. R. 2204
Luis, J. G. 173, 2871
Lussignol, M. 1539

Lwande, W. 421
Lydon, J. 695
Lynn, K. R. 1345, 2267
Lyznik, L. A. 3271

Ma Yunbao 3235
Mabry, T. J. 665, 1463, 1749, 1751, 2409
MacLeod, G. 1817
Machado, M. I. L. 2467
Macheix, J.-J. 67
Macias, F. A. 79
Mackinlay, E. E. 2943
Macleod, A. J. 1405
Macleod, G. 1405
Macura, S. 1763, 1765
Madaiah, M. 2897
Magalhaes, A. F. 2497
Magalhaes, E. G. 2497
Magnus, V. 2949, 3047
Mahato, S. B. 7, 207, 2769, 2852
Mahmoud, Z. F. 1749
Mahuteau, J. 308
Mairh, O. P. 3307
Maiti, D. C. 887
Majak, W. 2369
Majumder, P. L. 887, 1487, 1986
Makabe, K. 625
Malarczyk, E. 415
Maldonado, E. 1973, 2735
Malhotra, S. 1998
Malik, A. 1193, 1982, 2859, 3572
Malon, P. 3217
Malone, J. F. 591
Malterud, K. E. 1548
Manavu, R. M. 919
Manceau, F. 2671
Mancha, M. 2593, 2597
Mancheno, B. 1955
Mandal, S. 1281
Mander, L. N. 63
Mann, J. 2225
Mann, K. 295, 2213
Manville, J. F. 2681, 3073
Marangoni, A. G. 2293
Marco, J. A. 1513, 2163, 2505, 3121
Marco, J. L. 1685
Marcos, I. S. 183, 557, 651
Marcos, M. 1992
Marcus, S. E. 333
Marekov, N. L. 871
Margna, U. 469
Marin, P. 133, 260
Marino, M. 1976
Markakis, P. 2047
Markham, K. R. 243, 299, 3566
Marlowe, I. T. 2993
Marticorena, C. 1254
Martin, A. S. F. 183
Martin, D. D. 557
Martin, J. D. 1417, 1537, 3365
Martin, M.-T. 1557, 2711
Martin, V. S. 1537
Martinez, J. A. 961
Martz, W. 2311
Mase, I. 3139
Maslin, B. R. 817
Massanet, G. M. 2204
Massias, M. 1491
Massiot, G. 667, 1241, 1379
Masui, H. 2613
Masui, Y. 960
Mathela, C. S. .936, 1531
Mathur, H. H. 3237
Mathur, M. 1037
Matlin, S. A. 1751
Matoba, M. 1605
Matsuda, N. 881
Matsueda, S. 2731
Matsui, K. 407
Matsumoto, M. 2331
Matsumoto, T. 1133, 1219, 1271
Matsunaga, S. 1699, 3149
Matsuo, T. 1003
Matsushita, N. 881
Matsuuchi, K. 1409
Matsuura, T. 657
Matthee, E. 2851
Matthews, D. E. 113
Matulewicz, M. C. 2937
Maurya, S. K. 305, 1563
Maycox, P. R. 333
Mayer, A. M. 311, 1369, 2225
Mayer, R. 3233
Mayerl, F. 631
Mazelis, M. 729
Mazurek, T. 2885
McChesney, J. D. 3411
McClure, J. W. 2255
McDowell, P. G. 421
McGee, A. 489
McGrain, A. K. 1013
McPhail, A. T. 1245, 1541, 2191
McPhail, D. R. 1245, 1541, 2191
Medarde, M. 2717, 2863
Medeiros, D. F. 1985
Meegalle, M. R. S. K. 1278
Mehrotra, R. 3135
Meille, S. V. 923
Melkani, A. B. 936, 1531
Mello-Silva, R. de 1105
Mendes, E. 1685
Mendoza, E. M. T. 2269
Menezes, N. L. de 1105
Meng, X. 1163
Meracli, A. H. 1149
Mericli, F. 1149
Merienne, C. 308
Messana, I. 2807
Metwally, M. A. 3528
Metwally, M. E. 268
Metzger, P. 2097, 2349
Meyer, A. 1007
Meza-Basso, L. 759
Michel, C. 1589
Michelson, R. H. 3325
Middleton, D. J. 1825
Miersch, O. 339, 1303
Miguel del Corral, J. M. 659, 2717, 2863
Milborrow, B. V. 2641
Miller, A. R. 389
Milosavljevic, S. 1763, 1765
Mimaki, Y. 3163, 3453
Min Zhi-Da 553
Ming, C. W. 3233
Miocque, M. 2345
Miranda, C. 571
Misra, L. N. 634, 1771
Misra, T. N. 933

Mitchell, R. E. 1617
Mitra, S. K. 675
Mitscher, L. A. 3556
Mitsuhashi, H. 875, 2149, 2385, 2705
Mittal, P. 3193
Miwa, T. 960
Miyakado, M. 77
Miyakoshi, M. 1711
Miyase, T. 1919, 3369, 3399, 3483
Miyazaki, Y. 1479
Mizuno, M. 295, 553, 681, 2518, 2527, 2811
Mizutani, J. 425, 901, 2079
Moche, W. 2229
Mohan Rao, L. J. 3545
Mohan, P. 1287, 2529
Mohana Rao, P. R. 3031, 3545
Molho, D. 2711
Molho, L. 1491
Monaco, P. 629, 2319
Mondal, D. N. 3155
Monir, H. 2999
Monje, V. A. 651
Monteagudo, E. S. 2514
Monties, B. 1401
Moore, R. E. 1565
Moore, T. S., Jr 2635
Morais, A. A. 239
Moriguchio, K. 77
Morita, T. 1711, 3131
Morota, T. 2149, 2385, 2705
Morris, G. S. 1631, 1847
Motidome, M. 579
Motte-Florac, E. 288
Mpondo, E. M. 1759, 2503
Mu Quanzhang 1273
Mues, R. 867
Mukherjee, B. 675
Mukherjee, K. S. 1778
Mukhopadhyay, G. 675
Multari, G. 1550, 2807
Munesada, K. 1061, 3085
Munoz, L. 83
Munoz, R. 1331
Munro, J. 461
Murakami, K. 301, 1215
Murakami, M. 625
Murakami, T. 1605
Murakoshi, I. 881, 958, 2285, 2341, 2533
Murelli, C. 165
Muriuki, G. 2759
Murphy, D. J. 2063
Murray, R. D. H. 227
Murti, V. V. S. 957
Murty, V. K. 299
Murty, Y. L. N. 276
Muzaffar, A. 3221

Naeed, A. 3143
Naf, R. 631
Nagai, M. 2329
Nagaki, M. 2731
Nagakura, N. 1413
Nagao, T. 1605
Nagasampagi, B. A. 203
Nagashima, F. 1661, 2507, 3383, 3415
Nagem, T. J. 2211
Nagumo, S. 2329
Nahrstedt, A. 623
Nainawatee, H. S. 2913
Nair, A. G. R. 1761
Nair, M. G. 654
Nakajima, S. 655, 929, 1546
Nakamura, T. 626, 952, 1905, 2516
Nakanishi, K. 1417
Nakanishi, T. 2527
Nakano, K. 301, 1215
Nakatani, M. 1479, 2499
Namba, T. 595, 1289, 2823
Nandy, A. K. 2769
Naoki, H. 1479
Narendra, N. 1203
Nasini, G. 923, 2803
Nasir, H. 2848
Nath, S. C. 2007
Natori, S. 1605
Navarro, J. J. 2206
Nawwar, M. A. M. 1755, 3201
Ndengu, B. 1550
Neal, J. J. 451
Negrel, J. 477, 733
Nelofar, A. 675
Nelson, T. E. 936
Neri, P. 215
Nester, J. E. 63
Neszmelyi, A. 3355
Newton, R. P. 2243, 2559
Ngadjui, B. T. 231, 585, 1517
Ni, C.-Z. 2827
Nicolas, J. 2903
Nie, R.-L. 1711
Nielsen, B. J. 97, 3055, 3059, 3361
Niemeyer, H. M. 447, 1597, 1831, 2307
Nieto, J. L. 1901, 1993
Nishi, A. 1843, 2989
Nishi, M. 2527
Nishibe, S. 2447
Nishimura, H. 875, 2149, 2385, 2705
Nishioka, I. 891, 1855, 2331, 2443, 3179, 3469
Nishioka, N. 1873
Nishitani, I. 2655
Nishitoba, T. 193
Nishizawa, K. 301
Nitz, S. 3051
Nkengfack, A. E. 2522
Nkunya, M. H. H. 2217
Nock, L. P. 729
Nohara, T. 1761, 2701
Nonaka, G. 891, 1503, 2443, 3179, 3469
Nordstrom, K. 1585
Norman, H. A. 411
Norte, M. 647, 1417, 3365
Noseda, M. D. 2937
Notton, B. A. 2261
Nourse, A. 379
Nozawa, K. 655, 929
Nunes, D. S. 2183

Oberti, J. C. 1925, 2514, 2841
Obon, C. 2141
Ogihara, K. 1061, 3085
Ognyanov, I. V. 1115
Oguchi, H. 3483
Ogundana, S. K. 773, 2621
Ogura, H. 1703
Ohashi, T. 945

Ohba, S. 3421
Ohigashi, H. 1365
Ohmiya, S. 958, 2533
Ohmura, K. 1919
Ohnishi, K. 1627
Ohno, N. 77
Ohtsuka, J. 3421
Oka, T. 3562
Okada, A. 77
Okada, T. 960
Okanga, F. I. 919
Okano, K. 3331
Okuda, T. 607, 2177, 2447, 2451
Olafsdottir, E. S. 127
Olias, J. M. 1901
Oliva, E. M. 1645
Olmo, E. del 2717
Olsen, J. D. 1521, 1561
Omar, A. A. 843
Omura, M. 3562
Opheim, K. 1548
Oriente, G. 215
Orihara, S. 901
Orsini, F. 863
Ortega, A. 2735
Osborne, R. 3027
Otomasu, H. 958, 2533
Otsaki, H. 883
Otsuka, H. 513, 851, 2423, 3063, 3069, 3197
Ou, P. 1717
Oza, R. M. 3307
Oztunc, A. 3403

Pack, J. 1879
Padmaja, K. 3321
Padolina, W. G. 513, 3063
Pahlich, E. 1569
Pais, M. S. 2173
Pal, B. C. 207
Pal, M. K. 3437
Palma, M. S. 3281
Pancharoen, O. 1143
Pandey, H. S. 933
Pandey, V. B. 1563
Pant, A. 936
Pant, R. 2197
Paphassarang, S. 1539
Parisot, D. 3240
Parmar, V. S. 591
Parrilli, M. 284, 3244
Pascard, C. 1491
Pastoriza, J. A. 2841
Patel, A. 3171
Pattenden, G. 3159
Patterson, G. M. L. 1565
Patterson, G. W. 143
Paul, K. 1043
Pava, O. V. de 2803
Pearce, C. 2759
Pedro, J. R. 1264, 2405
Pelletier, S. W. 1521, 1561
Perales, A. 1453
Pereda-Miranda, R. 1483
Perez, A.-L. 1639
Perez, F. J. 1597, 1831
Perez, R. 1417, 3365
Pernollet, J.-C. 2565
Pervin, A. 3221
Pesel, E. 447, 2307
Pettitt, T. R. 399, 2053, 3295
Phillips, H. A. 3285
Phillipson, J. D. 1509, 2813
Philogene, B. J. R. 1373
Phinney, B. O. 337
Piattelli, M. 215
Picci, V. 849
Pichorner, H. 711
Pike, G. 1835
Pindir, C. S. 2909
Pinto, A. C. 642
Pinto, G. 2319
Pinto, M. M. M. 1284
Piovano, M. 571, 2844
Piozzi, F. 1453, 2763, 3539
Pizza, C. 199, 1773
Plat, M. 308
Plattner, R. D. 113, 439, 2963
Podder, G, 2769
Podder, S. 7
Podlaha, J. 1779
Podlahova, J. 1779
Poerio, E. 1307
Pollio, A. 2319
Pompi, V. 1550
Pope, N. M. 1531
Popov, S. S. 871
Posthumus, M. A. 1909
Potesilova, H. 3217
Potier, B. 2565
Poulter, C. D. 1467, 3043
Prabhakar, S. 1685
Prakasa Rao, N. S. 3031, 3545
Prasad, A. R. K. 3321
Prasad, D. D. K. 3321
Prasad, K. H. 1471
Pressey, R. 3277
Previtera, L. 629, 2319
Prewo, R. 1963
Price, K. R. 207
Proksch, P. 789, 2999
Pruner, M. S. 87
Przykorska, A. 1585
Puebla, P. 2863
Pugmire, R. J. 751
Puppo, A. 3265
Pusset, J. 667, 1298

Qadri, B. 3389
Qiao, Y. 3465
Qiu, S.-X. 3175
Quetin-Leclercq, J. 2221
Quijano, L. 3526
Quiron, J.-C. 1383
Qurishi, M. A. 3389

Rabesa, Z. 1996
Radlowski, M. 2921
Raj, K. 943
Ramamoorthy, T. P. 561, 567 1681
Ramavat, B. K. 3307
Ramirez, D. A. 2269
Rao, K. V. J. 950
Rao, L. J. 950
Rao, M. G. 299
Rao, N. S. P. 950
Rao, N. V. 47
Rao, P. R. M. 950

Rao, P. S. 957
Rasamoelisendra, R. 1996
Rashan, L. J. 2000
Rasool, N. 1187
Rathore, A. 1913
Rathore, J. S. 591
Rauter, A. P. 2173
Ravelo, A. G. 173, 2871
Ravi, K. 1471, 1695
Ravn, H. 288
Ray, A. B. 1769
Ray, A. K. 675
Raynaud, J. 1539
Razdan, T. K. 3389
Reader, G. 1405
Reaney, M. J. T. 2885
Rebuffat, S. 1491
Reddy, R. S. 47
Reisch, J. 839, 3242
Remiger, P. 505
Rether, B. 3246
Reynolds, G. W. 1256
Reynolds, P. H. S. 461
Reynolds, T. 3551
Reznicek, G. 825
Richard, F. 2903
Rickelt, L. F. 3055
Rigano, C. 2891
Riguera, R. 83, 1992, 2773
Rios, D. 759
Rios, T. 3526
Riscala, E. C. de 2155
Rischmann, M. 867
Rivera, D. 2141
Robert, M. L. 2659
Roberts, M. F. 773, 1509, 2226, 2621, 2813
Robien, W. 825
Robins, D. J. 1301
Robinson, H. 517, 531, 543, 641, 3497
Rocha, A. I. da 2355
Rockwood, L. L. 2601
Roddick, J. G. 2631
Rodilla, J. M. L. 557
Rodrigeuz, E. 3523
Rodrigues Gomes Goncalves, D. C. 1441
Rodriguez De Lera, A. 251
Rodriguez Perez, E. Ma. 2520
Rodriguez, B. 1069, 1453, 1685, 2763, 3539
Rodriguez, E. 1256
Rodriguez, I. 161, 1975
Rodriguez, M. L. 1417, 3365
Rodriguez-Hahn, L. 561, 567, 1681
Roewer, I. 1463
Rogers, C. E. 279
Rogers, L. J. 2993
Rohrig, L. 2667
Roitman, J. N. 303, 2213, 3493
Rojas-Gardida, M. 2397
Rojatkar, S. R. 203
Roman, L. U. 265, 1207, 2397
Rombold, C. C. 1959
Romero, M. 759
Romo de Vivar, A. 1639
Ros Barcelo, A. 1331
Ross, J. D. 1785
Rossi, A. 3281
Rossini, A. 165
Roth, R. J. 3530
Rouet-Mayer, M.-A. 1019
Rovirosa, J. 1851
Roy, S. 677
Roy, S. K. 2852
Rozentsvet, O. A. 3341
Ruangrungsi, N. 881
Rucker, G. 3233
Rudiger, H. 355
Rudolph, H. 1725
Rumbero, A. 1901
Rustaiyan, A. 1535, 2723, 3127
Ruveda, E. A. 1925
Ruyter, C. M. 491
Rylski, I. 737

Sabata, B. K. 2419
Sachar, R. C. 341, 1033, 1037
Saczynska, V. 1813
Sadri, H. A. 1535
Sahu, A. 1233
Sahu, N. P. 2769, 2852
Said, R. B. 71
Saijo, R. 2443
Saiki, Y. 1605
Saito, I. 657
Saito, K. 958, 1605, 2341, 2533
Saito, N. 1507
Saito, T. 1776
Saito, Y. 3421
Sajdl, V. 133, 260
Sakaki, M. 1365
Sakakibara, J. 2511
Sakakibara, N. 2527
Sakamura, S. 193, 771
Salam, N. A. A. 1263
Salatino, A. 1105, 3027
Salatino, M. L. F. 1105, 3027
Saleem, M. 323
Sallantin, M. 2565
Salonius, A. 2861
Salt, T. A. 143
Saluja, D. 341, 1037
Sam, T. W. 2857
Samonte, J. L. 2269
Samuel, C. J. 1835
San Feliciano, A. 659, 2717, 2863
Sanchez Vega, H. 1959
Sanchez, C. 567, 1681
Sanchez, J. F. 161, 1975, 2617
Sanchez, M. J. 1955
Sanchez-Ferrer, A. 1321
Sandermann, H., Jr 1589
Sanders, J. K. M. 2759
Sankawa, U. 147
Sanson, D. R. 2522
Santa-Maria, G. 3301
Santana, T. 961
Sanz, J. F. 2163, 2505
Sarg, T. M. 843
Sargent, J. R. 1355
Sasage, Y. 2145
Sasaki, H. 875, 2149, 2385, 2705
Sasaki, Y. 3069
Sashida, Y. 1499, 3163, 3453
Sastry, K. S. 47
Sati, O. P. 575
Sato, H. 193
Sato, K. 3562

Sato, T. 771, 883
Sauter, F. 2229
Savona, G. 1069, 1453, 2763, 3539
Sawyer, J. 1395
Scarpa, O. 165
Schabort, J. C. 379
Schaffer, A. A. 737
Scheller, G. 157
Schiff, P. L., Jr 1967
Schilling, G. 3493
Schmid, P. P. S. 1363
Schmidt, J. 1007, 1303
Schmitt, E. 1363
Schober, I. 3493
Schraudolf, H. 259
Schreiber, K. 339, 1007, 1303
Schreier, P. 157, 2281
Schubel, H. 491
Schuster, A. 543, 1943
Schwab, W. 157
Scogings, U. J. 153
Scopa, A. 284
Sedmera, P. 3217
Seigler, D. S. 817, 931
Seki, T. 3069
Sekine, H. 2215
Sekine, T. 881, 958, 2533
Seldes, A. M. 109
Seligmann, O. 211, 2373
Selva, A. 2793
Sembdner, G. 339, 1007, 1303
Sener, B. 1293
Seya, K. 1495
Shah, A. H. 305
Shamsuddin, K. M. 2459
Shamsuddin, T. 2459
Sharma, P. V. 3525
Sharma, R. P. 2007
Sharma, S. C. 933
Shaw, A. C. 2885
Shaw, D. C. 3019
Shaw, G. J. 1529
Shaw, M. L. 455, 461
Shaw, P. M. 811
Shen, X. 855, 2427
Sheppard, R. N. 2627
Sheridan, H. 489
Shet, M. S. 2897
Shida, S. 607
Shige, H. 359
Shigemoto, R. 2955
Shih, T.-S. 1541
Shilin, Y. 1509
Shimanuki, T. 771
Shimizu, N. 2609
Shimizu, S. 3399
Shimomura, H. 1499, 3163, 3453
Shimomura, K. 3507
Shioji, T. 1507
Shirahama, H. 1133
Shirai, R. 2285
Shivanna, K. R. 999
Shizuri, Y. 3421
Shoyama, K. 2701
Shoyama, Y. 1855, 2331
Shrestha, K. M. 3437
Shu, Y.-Z. 1289
Shukla, R. S. 2089
Shukla, V. S. 2007
Sibanda, S. 1550
Siddiqui, B. S. 1177, 1187, 2433, 3142
Siddiqui, I. R. 1229
Siddiqui, S. 1177, 1187, 2433, 3143
Siebertz, R. 789
Sieciechowicz, K. A. 2275
Sigari, H. 2723
Silva, M. 271, 1887, 2867
Silva, M. S. da 2209, 3477
Silva, M. V. 3511
Silva, W. S. J. 3221
Silveira, E. R. 3411
Silveira, J. C. da 2211
Simanek, V. 3217
Simantiras, M. 1381
Simmonds, M. S. J. 1069
Simoes, F. 2763
Simoneit, B. R. T. 1167
Simonsen, S. H. 2409
Simos, G. 2587
Singh, B. 1980
Singh, J. 947, 1197, 1229
Singh, P. 1258
Singh, R. S. 933
Singh, S. 611
Singh, S. K. 2535, 3193
Singh, V. P. 305, 1563
Sinha, N. K. 725
Sinha, S. C. 1769
Sinisterra, J. F. 1264
Sisti, M. 863
Sisto, A. 2603
Slavik, J. 1779
Slawin, A. M. Z. 2627
Sluis, W. G. van der 2439
Smirnoff, N. 1057
Smith, A. J. 1993
Smith, C. M. 2959
Smith, D. M. 2047
Smith, J. D. 811
Smith, L. A. 1573
Smith, T. A. 3252
Smitka, T. A. 1565
Smrdel, A. F. 2647
Snyckers, F. O. 2851
Soderhall, I. 1805
Soderhall, K. 1805
Solomon, J. C. 531
Sommerville, J. 654
Sondengam, B. L. 231, 585, 1517, 1557, 2855
Sonthi, J. D. M. 2807
Sood, A. 341
Soriano-Garcia, M. 567
Sosa, V. E. 1925
Sotheeswaran, S. 1073, 1544, 2783
Southwell, I. A. 1047
Souza, M. P. 2467
Spencer, G. F. 2963
Spencer, K. C. 931
Spraul, M. H. 3051
Sprengel, B. 1725
Spring, O. 745
Sree, A. 276
Srimannarayana, G. 913
Srivastava, R. 2877
Srivastava, R. S. 611
Srivastava, S. K. 644
St. John, J. B. 411
Stadler, R. 1083

Stanley, D. W. 2293
Star, J. V. 1959
Stefanovic, M. 1765
Steglich, W. 281, 3519
Stermitz, F. 1601, 1992, 2773
Stern, S. 303
Sterner, O. 2501
Stiff, A. A. 1047
Stockigt, J. 491
Stodulski, G. B. J. 1825
Stone, M. J. 1675
Strack, D. 1513, 1784, 2071, 2127
Strange, R. N. 2627
Strobel, G. 73
Strunz, G. M. 2861
Sturm, N. S. 1531
Suau, R. 3511
Suemitsu, R. 1627
Suga, T. 1061, 3085, 3331
Sugama, K. 2149, 2385
Sultana, A. 278, 3081
Sultana, N. 2433
Sultanabawa, M. U. S. 599
Sun Handong 1671, 2753, 3405, 3534
Sun Song-San 1776
Sun, H. 855, 2427
Surendrakumar, S. 599
Surico, G. 2603
Sutlupinar, N. 3217
Suzuki, A. 855, 2427
Suzuki, K. 117, 2655
Suzuki, M. 2145
Swenson, W. K. 821
Symersky, J. 1779
Szarkowski, J. W. 1585
Szendrei, K. 1560

Tabata, M. 741, 1873, 2643, 2955
Tabata, Y. 221
Tahara, S. 425, 901, 2079
Tajima, C. 2285
Tajimi, A. 771
Tajiri, M. 2499
Takada, M. 655
Takada, Y. 2499
Takagi, S. 3503
Takahashi, A. M. 1441
Takahashi, N. 63, 337, 1219
Takaishi, K. 1409, 1413, 2971
Takaishi, Y. 301. 945, 1215
Takamatsu, S. 958, 2341
Takayama, K. 2285
Takeda, K. 499
Takeda, Y. 851, 1691, 2423, 3069
Takemoto, I. 301
Takeuchi, M. 883
Takeya, K. 1667, 3465
Takido, M. 2215
Takizawa, N. 3483
Talapatra, B. 290, 1181, 3437
Talapatra, S. K. 290, 1181, 3437
Talbot, B. 1335
Talwar, K. K. 1091, 2093
Tamayo-Castillo, G. 139, 641, 939, 2415, 2737, 2741
Tamura, K. 2811
Tamura, K.-I. 2518
Tamura, T. 1219, 1271
Tan-Wilson, A. L. 1013
Tanahashi, T. 1413, 2971
Tanaka, H. 626, 952, 1905, 2516
Tanaka, K. 2451
Tanaka, N. 1675
Tanaka, O. 1711, 1855
Tanaka, R. 1699, 3149
Tanaka, S. 741, 2955
Tanaka, T. 295, 553, 1711, 2518, 2527, 2811, 3179, 3469
Tanaka, Y. 636
Tandon, J. S. 1913
Taneja, S. C. 1998
Tang, C.-S. 1883
Tang, Y. 3331
Taniguti, M. 211
Tantisewie, B. 1284
Tapia, I. 2206
Tapie, P. 1087
Tashiro, K. 2989
Tatara, S. 147
Tatic, B. 133
Tatum, J. H. 283
Tayama, T. 3421
Taylor, W. C. 1143, 2463
Tchouankeu, J. C. 2855
Telikepalli, H. 3556
Tempe, J. 2675
Tempesta, M. S. 2522
Terada, Y. 3421
Terahara, N. 1507
Tewari, A. 3307
Thakur, R. S. 1980, 2002, 2089, 3135
Thakur, S. 509
Thaller, V. 2949, 3047
Theuns, H. G. 2833
Thirion, J.-P. 1335
Thomas, A. F. 631
Thomas, D. W. 2489
Thompson, J. E. 2577
Threlfall, D. R. 775, 2981
Throndsen, J. 3347
Tihanyi, K. 1335
Timberlake, C. F. 966
Timmermann, B. N. 3229
Tinus, R. W. 765
Tisserat, B. 799
Todorova, M. N. 1115
Toki, K. 1507
Tomas-Barberan, F. A. 1613, 1901, 1993, 2141
Tomas-Lorente, F. 1613, 1901, 1993, 2141
Tomimatsu, T. 301, 945, 1215
Tomimori, T. 1289
Tomita, Y. 3139
Tomoda, M. 2609
Tonn, C. E. 1537
Tori, M. 3377
Torre, M. C. de la 3539
Torrenegra, R. 2219
Torres, M. R. 1453
Torres, P. 3093
Toscano, R. 567
Tostao, Z. 2173
Towers, G. H. N. 93, 1827, 3523
Toyonaga, T. 2329
Toyota, M. 1661, 2507, 3383, 3415
Tracey, A. S. 2681, 3073
Treutter, D. 1363
Tripathi, Y. C. 1563
Trivedi, G. K. 3237

Trivedi, R. 1211
Trojanek, J. 1779
Troupe, N. 2917
Trowitzsch-Kienast, W. 1613
Tsai, C. Y. 3271
Tsai, I.-L. 615
Tsamo, E. 2855
Tsichritzis, F. 1119, 2741
Tsotsonos, P. 3317
Tsuneya, T. 636
Tucciturco Nasi, A. M. 1441
Tuchinda, P. 2463
Tuntiwachwuttikul, P. 1143
Turecek, F. 1779
Turkoz, S. 1293
Tuzlaci, E. 649, 3561

Uchiyama, T. 3369
Udagawa, S. 929
Udagawa, S.-I. 655
Udchachon, J. 2463
Uddin, S. 2169
Uemoto, S. 1503
Ueno, A. 1691, 1919, 3369, 3399, 3483
Ulubelen, A. 649, 3561
Uniyal, S. 575
Unnikrishnan, S. 2535
Urbatsch, L. F. 1729
Urbina, J. A. 1349
Urones, J. G. 183, 557, 651
Ushiyama, M. 483, 1859, 2333, 3009, 3335
Usmanghani, K. 3369, 3399
Usubillaga, A. 2509

Vaidyanathan, C. S. 1203
Vainjarv, T. 469
Vajs, V. 1763
Valeri, B. de 2509
Valpuesta, M. 3511
Valverde, S. 1267
VanEtten, H. D. 113
Vandercook, C. E. 799, 1627
Vanzegeren, H. L. 323
Varljen, J. 2379
Vaughan, J. M. 2559
Vazquez, J. T. 1417, 2871
Veerraju, P. 950, 3031
Vega, H. S. 1149
Velde, D. V. 3556
Veldhuizen, A. van 1909
Velez, H. 961
Vella, J. 57
Vellone, R. 2603
Venkateswara, R. 1203
Venturella, P. 1976
Verma, N. 1033
Verotta, L. 863
Verpoorte, R. 2981
Vichnewski, W. 1441
Vidari, G. 1427
Vieira, P. C. 579
Vilegas, J. H. Y. 3577
Villagomez, J. R. 1207, 2397
Villalba, J. 1321
Villar, A. 1267
Villarreal-Rosales, E. 2349
Villaverde, C. 251
Villaverde, M. C. 1992, 2773

Villegas, M. 2651
Viricel, M. R. 2471
Vishwakarma, R. A. 3135
Viswamitra, M. A. 1203
Vita-Finzi, P. 1427
Voirin, B. 1996
Vona, V. 2891
Vorkefeld, S. 1007

Waddell, T. 1373
Wagner, E. G. H. 1585
Wagner, H. 211, 505, 2373, 2379, 3355, 3403
Wagner, M. R. 765
Waibel, R. 2759
Waiss Jr, A. C. 3443
Wald, B. 663
Wallace, J. W. 299
Wallace, W. 3285
Wallnofer, B. 2687
Walton, T. J. 2243, 2559
Wan, A. S. C. 3473
Wang, C. 3536
Wang, D.-Z. 2787
Wang, H. 2409
Wang, J.-H. 1825
Wang, M. 3564
Wang, Q. 1163
Wang, X.-M. 411, 3542
Wang, Y. 2323
Wannigama, G. P. 1073, 2783
Warin, R. 2221
Wasserman, R. H. 795
Wasshausen, D. C. 1937
Watanabe, K. 77, 1667
Watanabe, S. 1776
Waterman, P. G. 273, 1291, 1897, 2489, 3207, 3551
Weenen, H. 2217
Weidenborner, M. 3317
Weidenhamer, J. D. 2315
Weir, A. F. 1339
Weissenberg, M. 795
Wenteler, G. L. 153, 263
Westley, J. W. 2917
Whitehead, I. M. 775, 2981
Whitford, P. N. 2261
Whiting, D. A. 1268
Wickramasinghe, A. 3242
Wijkens, P. 2833
Willemot, C. 1276
Williams, C. A. 1891
Williams, D. J. 2627
Williams, E. A. 1327
Williams, R. D. 2085
Williams, T. 829
Willows, R. D. 2641
Wilschke, J. 1725
Wilson, K. A. 1013
Wilson, M. A. 1395
Wilzer, K. A. 1729
Wiriyachitra, P. 1827
Witte, L. 789, 1635
Wojciechowski, Z. A. 2931
Wolbis, M. 2187
Wolfe, G. R. 143
Wolff, C. 1725
Wollenweber, E. 295, 303, 2213, 3493
Wolter-Filho, W. 2355

Wong, E. 235
Wong, L. K. 1967
Wong, M. M. 211
Wong, R. Y. 3443
Wong, S.-M. 211
Woolfenden, W. R. 751
Wray, V. 623, 663, 789, 1513, 1613, 2071, 2373
Wu Ming 1978
Wu, T.-S. 245, 292, 1245, 1280, 2873, 3558, 3574
Wu, Y.-C. 2191
Wylde, R. 288

Xiaoje, L. 189
Xu Guang-Yi 553
Xu Yunlong 1671, 1978, 2753, 3235
Xu, S. 143

Yahiro, K. 1761
Yamada, M. 805
Yamada, Y. 1077, 1627, 2869
Yamaguchi, K. 625
Yamaki, M. 3503
Yamamitsu, T. 1061
Yamamoto, K. 1627
Yamamura, S. 3421
Yamane, H. 63, 337
Yamasaki, K. 513, 851, 883, 1855, 2423, 3063, 3069, 3197
Yamasaki, T. 1215
Yamasaki, Y. 2583
Yamauchi, T. 1737, 3197, 3473
Yamaura, T. 741, 2955
Yamazaki, M. 2341
Yan, X.-Z. 1541
Yanagawase, S. 1627
Yanagi, K. 77
Yanes, A. C. 2520
Yang Shi-Lin 2813
Yang, C.-R. 2787, 3131
Yang, J. 3131
Yang, M. 3171
Yang, S. S. 1749
Yang, T.-H. 2191
Yang, X.-Q. G. 1565
Yasukawa, K. 2215
Yates, M. K. 1529
Yatskievych, G. 303
Yazaki, K. 607
Yenesew, A. 1291, 3207
Yeoh, H.-H. 721, 1043
Yeoman, M. M. 1784
Yin, T. 411
Yokota, T. 1219
York, W. S. 2105
Yoshida, M. 1991, 2209, 2355, 3477
Yoshida, T. 2177, 2451
Yoshihara, T. 771
Yoshikawa, H. 407
Yoshikawa, T. 483, 1859
Yoshinari, K. 1499
Yoshino, T. 2533
Younis, L. M. 2559
Yousif, N. J. 1268
Yu, C.-M. 2861
Yue, J. 1774
Yueh, A. Y. 1579
Yunlong, X. 189
Yupsanis, T. 385

Zakaria, M. B. 657
Zare, K. 1535, 3127
Zazmi, S. N.-H. 3572
Zdero, C. 517, 531, 1119, 1155, 1433, 1653, 1949, 2745, 3345, 3532
Zedero, C. 3097, 3101, 3105
Zeghdi, S. 227
Zenk, M. H. 1083
Zerback, R. 897
Zhang Fenglei 1671
Zhang Hongjie 3405, 3534
Zhang, W. 337
Zhang, Z.-X. 3175
Zheng, Q.-T. 3131
Zhou Qianlan 1273
Zhou, B. 3536
Zhou, H.-M. 3569
Zhou, J. 1711, 3175
Zhu, J. 1963
Zimmermann, H. 3233
Zimowski, J. 2931
Zini, G. 859
Zuniga, G. E. 419

SUBJECT INDEX

A
Abies, structural differences in sesquiterpenoids between different species of 2681
A. concolor, maturational variation in needle essential oils from 765
A. lasiocarpa, sesquiterpenoids from 3073
A. pinsapo, juvabione-related sesquiterpenoids from 2617
Abietane quinones, from *Rabdosia* 189
Abrus precatorius, 6,7-dimethoxyflavone 8-*C*-glycosides from 299
Abscisic acid,
ratio of *S* to *R* enantiomers in cultures supplied with racemic ABA 2885
stereochemistry of H atoms at C-5′ of 2641
Abutilon indicum, sesquiterpene lactones from 3525
A. theophrasti, glyphosphate effects on shikimate pathway in 695
Acacia subgenus *Aculeiferum*, cyanogenesis in 817
A. auriculiformis, triterpenoid trisaccharide from 207
Acanthaceae 3059, 3361
Aceraceae 2105
Acetogenin, C_{15} from the red alga *Laurencia* 647
Acetohydroxamate, as inhibitor of allantoinases from *Vigna* 47
Acetophenones,
free and glucosyloxy-, from *Pancratium* 3193
p-hydroxy-, from *Dioscorea* 947
Acetylcholinesterase-inhibitory activity, of steroidal glycoalkaloids from *Solanum* 2631
Acetylene, di-, from *Hedera* 1256
Achillea abrotanoides, sesquiterpene lactones from 1765
A. fragrantissima, glaucolides from 3528
A. millefolium, piperideides and other alkamides from 2363
α-Acid oxidase, inhibition of, by polyphenols 1327
Acorus gramineus, allochemical activity of phenylpropanes from 2319
Acronychia pedunculata, phenylethanone from 1278
Actinidia chinensis, lysozyme from fruit of 2267
Actinidiaceae 2267
Actinodaphne lancifolia, C_{15}-γ-lactones from 626
A. longifolia,
lactones from 1905
lignan from 952
phenolic amide from 2516
Acylphloroglucinols,
from South African *Helichrysum* 1119
immunologically active, from *Jatropha* latex 2439
Adenia, cyanohydrin glycosides from species of 127
Adenocalymma alliaceum, aliphatic hydroxyketones from 933
Affinity chromatography, purification of plant β-galactosidases by 2587
Agaricaceae 2501
Agaricales 2647
β-Agarofurane sesquiterpene esters, from *Maytenus* 173
Agathis vitiensis, diterpenoids from wood of 1675
Agavaceae 1215, 2787, 3171
Agave sisalana, steroidal saponins from 2787
Ageratina,
ent-clerodanes and *p*-hydroxyacetophenones from 139
yeast extract induces benzofuran accumulation in cultures of 2999
A. glechonophylla, chromenes and benzofurans from 2520
Air pollution, effects of on tannin biosynthesis in *Cryptomeria* 439
Akebia quinata, 30-noroleanane saponins from callus tissue of 2663
Alangiaceae 3197
Alangium platanifolium var. *trilobum*, phenolics from 3197
Albizia anthelmintica, saponins from 863
Alcohol dehydrogenase, from soybean 1335
Aldehydes, in A race strains of *Botryococcus* 2349
Aleurites fordii, coumarinolignoid and coumarin from 2459
Aliphatic hydroxyketones, from *Adenocalymma* 933
Alkaline phosphatase, phosphate-repressible, from *Neurospora* 3281
Alkaloid,
bioactive, from the fungus *Ascochyta* 923
C_{18} carbazole, from *Glycosmis* 677
diketosecophthalide isoquinoline, from *Papaver* 2002
diphenylbenzylisoquinoline, from *Tiliacora* 675
from *Dioscorea*, incorporation of 3-hydroxy-3-methylglutaric acid into 3325
from hybrid *Delphinium* population 1561
from *Roemeria*, X-ray crystallography of 1779
from *Thermopsis*, as key intermediate in biosynthesis of lupin alkaloids 958
from *Vinca*, 2-dimensional NMR study of 308
isoquinolone, from *Thalictrum*, structure revision of 1967
2-oxo-pyrroline dimer, from *Mercurialis*, synthesis of 960
production of, in green callus of *Thermopsis* 2341
pyrrolidinyl piperidine, from *Maackia* flowers 2533
quinolizidone, from *Laburnum* 673
sarpagine-type, from *Rauwolfia* 961
spermidine, from root bark of *Capparis* 2493
Alkaloidal pigments, from *Lactarius* species 3519
Alkaloids,
age and tissue distribution of, in *Papaver* 2085
aporphine, from *Ocotea* 3577
benzophenanthridine, production of in *Eschscholtzia* cultures after treatment with elicitor 1101
benzylisoquinoline,
from *Sarcocapnos* 251
(*S*)-norcoclaurine as precursor of 1083
cularine, from *Ceratocapnos* 3511
cyclopeptide, from *Zizyphus* bark 305, 1563
esterified, from *Erythroxylum* leaves 3211
from *Alstonia* 667, 1241, 1963
from *Citrus* stem bark 3574
from *Clausena* 1517
from *Corydalis* 1245
from *Coscinium* 1998
from *Dehaasia* 615
from *Delphinium* 919, 1521
from *Erythroxylum* stem bark 671
from *Haemanthus* 3248
from *Merendera* species 3217
from *Monodora* 2489
from *Peganum* seeds 2000
from *Petchia* 3221
from *Tylophora* 3513

homoerythrinane, from *Phelline* 1298
homoormosanine-type, from *Bowdichia* 2219
improved production of, by *Rauwolfia* cultures 491
indole,
from *Alstonia* 1963
from *Catharanthus* hairy-root cultures 1383, 2675
from curare 2221
from *Gelsemium* 2827
from *Hapalosiphon* 1565
from *Murraya* root bark 2873
production of, by *in vitro* root cultures of *Catharanthus* 2675
isocarbostyril, from *Haemanthus* 611
isoquinoline, ^{1}H and ^{13}C NMR assignments of 2833
methylenedioxyphenyl-substitution of and autosynergism 451
pyrrolizidine, patterns of in *Senecio* 1635
pyrrolophenanthridine, from *Crinum* 2535
quaternary indole, from *Alstonia* 1963
quinoline, from *Camptotheca* 1295
steroidal, from *Buxus* 1293, 2848
tropane,
biosynthesis of in *Hyoscyamus* 1077
from *Duboisia* and *Hyoscyamus* 3507
Alkamides,
from *Achillea* 2363
from *Echinacea* roots 505
N-Alkanes, from Euphorbiaceae and Compositae 1254
Alkanes, of foliar epicuticular waxes,
from *Encephalartos* species 3027
from Velloziaceae 1105
S-Alk(en)-L-cysteine sulphoxide biosynthesis, in *Allium* 455
Alkenylphenols, very long chain, in alkadiene-producing strain of *Botryococcus* 2097
Allelochemical activity, of phenylpropanes from *Acorus* 2319
Allelopathic 3-hydroxyuridine, from *Baillonella* 1365
Alliaceae 455, 461, 729, 2373
Alliin lyases of garlic and onion, lack of homology between 729
Allium, γ-glutamyl peptides as intermediates in the biosynthesis of flavour precursors of 455
A. cepa,
biologically active thiosulphinates from 2373
intracellular localization of flavour precursor biosynthetic pathway in 461
lack of homology between alliin lyases of garlic and 729
A. sativum, lack of homology between alliin lyases of onion and 729
Alluaudia dumosa, 6-*C*-methyl and 6,8-di-*C*-methyl-3,7-di-*O*-methylkaempferol from 1996
Alnus sieboldiana, ellagitannins from leaves of 3179
Alocasia macrorrhiza, trypsin inhibitors from 3019
Aloe rabaiensis, anthracenes and chromones in exudate of 3551
Alstonia angustifolia, quaternary indole alkaloids from 1963
A. congensis, alkaloids from 1241
A. coriacea, alkaloids from 667
Alternaria cassiae, phytotoxins from 73
A. porri, biosynthesis of macrosporin by 1621
Amaryllidaceae 611, 729, 1771, 2535, 3193, 3248
Ambrosia chamissonis, dithiacyclohexadienes and thiophenes from 3523
Amides,
from *Clausena* 621
from *Piper* 3039
from *Zanthoxylum* 839
phenolic, from *Actinodaphne* 2516
sulphur-containing, from *Entada* 881
Amino acids, variations in, under different nitrogen conditions in *Cyanidium* 2891
4-Aminopyridine-2,3-dicarboxylic acid, from the toadstool *Clitocybe* 1133
cAMP, enhancement of chromatin availability and RNA polymerase activity by 701
α-Amylases, polymorphism of, in maize, oats and sorghum 2921
Amyris balsamifera, essential oil of 1909
Anacardiaceae 1471
Anarrhinum orientale, iridoid glucoside esters from 3227
Anemia mexicana, antheridiogen from gametophyte of 63
Anisopappus pinnatifidus, pseudoguaianolide from 1155
Annonaceae 231, 2191, 2217, 2489
Antheridiogen, from the fern *Anemia* 63
Anthochlor pigments, from *Pterocarpus* heartwood 2529
Anthocyanidin
malonylglucosides,
from *Hibiscus* flowers 1503
from *Verbena* flowers 1507
3-neohesperidosides, from *Podocarpus* receptacles 495
Anthocyanin patterns, in European orchids 2127
Anthocyanins, malonated,
from *Echinacea* 3246
from *Malva* 499
Anthracenes, in *Aloe* exudate 3551
1,4-Anthraquinone, from *Tectona* 1258
Anthraquinone
glycosides from *Cassia* seeds 211
-producing cell cultures, formation of *o*-succinylbenzoic acid from *iso*-chorismic acid in 1381
Anthraquinones,
from *Asphodeline* 649
from *Gladiolus* 281
from *Rubia* 3465
location of glycosylation and alkylation sites in, by ^{1}H NMR 2455
structural elucidation of, using ^{1}H NMR shifts 3459
Anthyllis sericea, isohamnetin triglycosides from 1513
Antibacterial alkaloid, from the fungus *Ascochyta* 923
Antifungal
activity, of isoflavonoids against *Aspergillus* storage fungi 3317
fatty acid, from *Colocasia* inoculated with *Ceratocystis* 2613
phloroglucinols and flavonoids, from *Helichrysum* 1613
triterpenoid, from *Mollugo* 1767
Antimalarial quassinoid glycoside, from *Eurycoma* 2857
Antimicrobial
bibenzyl, from *Glycyrrhiza* 3556
flavonoids, from *Psiadia* 2323
sesquiterpene, from damaged *Rosa* leaves 425
Antiphiona, pseudoguaianolides from 1155
Anti-ulcer triterpene acid, from *Cussonia* 2851
Aphid feeding behaviour, on water-stressed and unstressed barley leaves 419
Aphids,
changes in hydroxamic acid levels of wheat induced by 447
ingestion of DIMBOA from wheat by 2307
Apiaceae, see Umbelliferae
Apium graveolens,
aroma volatiles in varieties of 1817
inhibition of sterol biosynthesis in, by paclobutrazol enantiomers 781
Apocarotenoid, from *Bixa* seeds 3159
Apocynaceae 308, 491, 667, 961, 1087, 1093, 1187, 1241, 1383, 1737, 1963, 2345, 2675, 2981, 3143, 3221, 3473
Aporphines, cytotoxic, from *Artabotrys* 2191
Aquifoliaceae 1479

Aquilariaceae 3548
Arabinogalactans, with immuno-stimulating activity, from *Calendula* 2379
Araceae 2319, 2613, 2897, 3019
Araliaceae 483, 644, 1256, 1539, 1855, 1859, 2851, 3009
Araucariaceae 1675
Arecaceae, see Palmae
Ariopsis peltata, purification of lectin from 2897
5-*epi*-Aristolochene, as a precursor of sesquiterpenoid phytoalexins 775
Aristolochia yunnanensis, sesquiterpene lactones from 3233
Aristolochiaceae 3233
Aroma volatiles,
from celery and celeriac 1817
from parsley leaves 3051
Aromatic carboxylic acids, biotransformation of, by *Panax* root culture 1859
Arrhenatherum, flavones and *C*-glycosylflavones from species of 3035
Artabotrys uncinatus, cytotoxic aporphines from 2191
Artemisia, polyacetylenes from 2687
A. abyssinica, biogenetic-type synthesis of vulgarin and peroxyvulgarin in 107
A. annua,
methoxylated flavones and coumarins from 1509
synthesis of sesquiterpene lactones found in 3530
A. campestris ssp. *maritima*, flavonoids from 2173
A. diffusa, sesquiterpene lactone from 2723
A. gypsacea, sesquiterpene lactones from 1535
A. herba-alba, sesquiterpene lactones from 2505, 3121
A. hispanica, sesquiterpene lactones from 2163
A. lanata, structure revision of flavone from 2869
A. montana, guaianolides from 2731
A. vulgaris, coumarins from tissue cultures of 3003
Artocarpus integra, fatty acid ester and triterpenoid from 2197
A. integrifolia, proteinase inhibitor from 725
A. nobilis, pyranodihydrobenzoxanthones from 599
Arylketone, from *Acronychia* root bark 1278
Asclepiadaceae 1203, 1211, 1273, 1345, 2859, 3175, 3513
Asclepias syriaca, lysozymes from latex of 1345
Ascochyta chrysanthemi, bioactive alkaloid from 923
A. rabiei, phytotoxin production by, in presence of chickpea cell extract 2627
Ascomycetes 923
Ascorbate
free radical reductase, interaction of with sulphhydryl reagents 715
oxidase secretion, in pumpkin cell cultures 117, 2655
Asparaginase, from *Pisum* leaves 2275
Aspergillus, antifungal activity of isoflavonoids against 3317
Asphodeline tenuior, oxepines and anthraquinones from 649
Asphodelus ramosus, bianthrone *C*-glycoside from tubers of 284
Aster praealtus, coumarins from 1729
Asteraceae, see Compositae
Astragalus miser var. *serotinus*, 3-nitropropanol glycoside from 2369
Asystasia bella, iridoid glucosides from 3361
Aureolaria flava, sequestration by *Euphydryas* of iridoid glycosides from 1601
Aurone glycosides, from *Pterocarpus* 1287, 2529
Autosynergism, in relation to methylenedioxyphenyl substitution of alkaloids 451
Avena sativa,
polyamine oxidase from 2045, 2255
polymorphism of α-amylase isoenzymes in 2921
prolamins from 2565
Avrainvillea rawsoni, HMG-CoA reductase inhibitor from 2917
Azadirachta indica,
diterpenoids from stem bark of 1177
tetranortriterpenoids from 203

B

Baccharis, di- and sesquiterpenes from 531
B. artemisioides, clerodane diterpene from 1537
Backhousia angustifolia, cyclohexenone from 1259
Bacteria 415, 1289, 1383, 1617, 2603
Bacterial cleavage, of *C*-glucosyl bond of mangiferin and bergenin 1289
Bahia schaffneri, triacyl glucopyranoses from 1639
Baillonella toxisperma, 3-hydroxyuridine as an allelochemical from 1365
Balsamita major, sesquiterpene lactones from 1115
Balsamorhiza, flavonoids from 501
Basidiomycetes 945, 1133, 1427, 2803, 2949, 3047
Bellevalia romana, homoisoflavanones from 3244
Benzofurans,
accumulation and biosynthesis of, in *Eupatorium* root cultures 789
accumulation of, in *Ageratina* cultures after addition of yeast extract 2999
from *Ageratina* 2520
Benzophenones, polyisoprenylated, from *Garcinia* 1233
Berberidaceae 2527, 2601, 3483
Berberis stolonifera, benzylisoquinoline alkaloid biosynthesis in cell cultures of 1083
Bergenin, bacterial cleavage of *C*-glucosyl bond of 1289
Beta vulgaris, α-glucosidases of suspension-cultured cells of 2583
Betula, triflavanoid procyanidins from bark of 3487
Betulaceae 3179, 3487
Betulin,
from *Croton* 2759
review of 2229
Bianthrone *C*-glycoside, from *Asphodelus* tubers 284
Bibenzyls,
antimicrobial, from *Glycyrrhiza* 3556
from the orchid *Dendrobium* 1986
in species of orchids 3031
Bidens pilosa, chalcone glucosides from 247
Biflavonoids, from *Lophira* bark 1557
Bignoniaceae 933, 1555, 2773
Binaphthol, neurotoxic, from *Hemerocallis*, *Stypandra* and *Dianella* 1825
Binaphthoquinone, cytotoxic, from *Diospyros* 1541
Biocides, flavonoid, structure/activity relations of 87
Biologically active
compounds, from *Citrus* cultivar jyabon 1061
polysaccharides, from plants 2877
sesquiterpene lactones, from *Inula* 2093
thiosulphinates and sulphinyldisulphides, from onion 2373
Biopolymer, resistant, in L race of *Botryococcus* 1137
Biosynthesis
of abscisic acid 2641
of anthraquinones in *Galium* cultures 1381
of benzofurans in *Eupatorium* root cultures 789
of benzoisoquinoline alkaloids 1083
of cardenolides in *Digitalis* 109
of carotenoids in *Phycomyces* 1623
of chlorophyll in mung bean, effect of selenium on 3321
of cinnamoylputrescines in *Nicotiana* 477
of dihydroanthracenones from *Dermocybe* 2647
of dihydroisocoumarin by elicitor-treated carrot root extract 1843
of dioscorine, incorporation of 3-hydroxy-3-methylglutaric acid into 3325
of dithiacyclohexadiene in *Chaenactis* 93
of flavanones in grapefruit 1627

of flavour precursors in *Allium* 455, 461
of *p*-hydroxybenzoic acid in *Lithospermum* cultures 2643
of 4-hydroxyisoleucine in fenugreek 1835
of 4-hydroxy-5-methylcoumarin in *Gerbera* 2329
of IAA in Chinese cabbage, *N*-malonyltryptophan as precursor in 2571
of iridoid glucoside in *Verbena* 97
of lipids in *Botryococcus* 2097
of lupin alkaloids in *Thermopsis* 958
of macrosporin by *Alternaria* 1621
of phenolics in *Fagopyrum* 469
of phosphatidylcholine in castor bean endosperm 2635
of pterocarpan in soybean 113
of rhizobitoxine by *Pseudomonas* 1617
of secologanin, possible intermediacy of 6-hydroxyloganin in 2971
of sesquiterpene lactones in *Artemisia* 107
of sesquiterpenes in *Polygonum* cultures 1631
of sesquiterpenoid phytoalexins 775
of shikonin in *Lithospermum*, enzymatic regulation of 1873
of sterols in *Medicago* 465
of sterols, inhibition of by paclobutrazol enantiomers 781
of thiophene polyines in *Chaenactis* 93
of triterpenoid phytoalexins in *Tabernaemontana* 2981
of tropane alkaloids in *Hyoscyamus* 1077
Biotransformation
of aromatic carboxylic acids by *Panax* root culture 1859
of digitoxigenin by *Strophanthus* cultures 1093
of dihydrojasmonic acid in barley shoots 1007
of 1,5-diphenylsulphinyl-3-methyl-3-nitropentane by *Catharanthus* cells 2345
of geraniol by photoautotrophic and heterotrophic cell suspensions 1087
of *ent*-3β-hydroxykaur-6,16-diene by *Gibberella* 1053
of *ent*-13-*epi*-manoyloxide diterpenes by *Gibberella* 1851
of phenylcarboxylic acids by plant cell cultures 3335
of 2-phenylpropionic acid in *Panax* root culture 483
of (*RS*)-tropic acid in cultures of *Coffea*, *Datura*, *Eucalyptus* and *Nicotiana* 2333
Biphenanthrenes, from *Bletilla* 3503
Biphenyls, from *Magnolia* 1284
Bis-diterpene, from *Calceolaria* 571
Bisnorlignans, from *Pachypodanthium* 231
Bitter hexa-*O*-acyltetrasaccharide, from *Polygala* 3355
Bixa orellana, terpenoids and apocarotenoid from seeds of 3159
Bixaceae 3159
Bletilla striata, biphenanthrenes from 3505
Blumea malcomii, reassessment of flavonol structures from 243
Boenninghausenia albiflora, dimeric coumarin from 1281
Boraginaceae 1873, 2643
Botryococcus braunii,
C_{31} hydrocarbon from 3043
hydrocarbons, aldehydes and triacylglycerols in 2349
lipid biosynthesis in alkadiene-producing strain of 2097
resistant biopolymer in the L race of 1137
tetramethylsqualene from 1467
Botryodiplodia theobromae, jasmonic acids from culture filtrate of 1303
Botrytis cinerea, epoxy-intermediate resulting from metabolism of isoflavone by 2079
Bouvardia ternifolia, growth promoting activity of some penicillins on cultured cells of 2659
Bowdichia virgiloides, homoormosanine alkaloids from 2219
Brassica campestris ssp. *pekinensis*, *N*-malonyltryptophan metabolism by seedlings of 2571
B. oleracea,
butyl- and isobutylglucosinolates in seeds of 1405
α-ketoglutarate dehydrogenase from 3291
B. rapa, membrane damage of, by exposure to *t*-butylhydroperoxide 1003
Brassicaceae, see Cruciferae
Brickellia laciniata, diterpenes and sesquiterpene lactone from 2741
Brominated
diphenylmethane, from *Agrainvillea* 2917
diterpene, from *Chondria* 3403
Bromoallenes, non-terpenoid, from *Laurencia* 2145
Bromus inermis, method to measure DNA synthesis in protoplasts of 323
Bryophyllum pinnatum, triterpenoids and phenanthrenes from 2433
Bryophyta 1395, 1725
Buddleja globosa, phenolic fatty acid esters from 2693
Bursera leptophloeos, flavonoids from 2467
t-Butylhydroperoxide, membrane damage of storage tissues exposed to 1003
Buxaceae 1293, 2848
Buxus papillosa, triterpenoid and steroidal alkaloid from 2848
B. sempervirens, steroidal alkaloids from 1293

C
Cadinenes, review of 2007
Caffeic acid
enol esters, from cultures of Labiatae 2109
glycoside ester, from *Plantago* 288
tetrameric derivative, from *Rabdosia* 2447
Caffeine,
as taxonomic marker in *Coffea* and *Psilanthus* 829
in *Coffea* suspension cultures 2667
Caffeoyltyrosine, from green robusta coffee beans 1989
Calamintha ashei, menthofurans from 79
Calceolaria, flavonoid algycones from species of 2213
C. foliosa, diterpenes and bis-diterpene from 571
C. glandulosa, diterpenes and bis-diterpene from 2844
Calcitriol, distribution of activity of in *Solanum* plants and cell cultures 795
Calea, sesquiterpene lactones from 2415
C. crocinervosa, tris-norsesquiterpene lactone from 2735
Calendula officinalis, immuno-stimulating arabinogalactans from 2379
Calmodulin, from avocado fruit tissue 705
Calocedrus formosana,
lignans from leaves of 3553
terpenoids from leaves of 1173
Calostephane divaricata, *cis*-eudesman-12,6-olides from 1433
Calotropis procera, steroid from 2859
Camptotheca acuminata, quinoline alkaloids from 1295
Canavalia ensiformis, concanavalin A-binding polypeptides in 333
Candidine, identity of 3547
Canella winterana, sesquiterpene from 297
Canellaceae 297
Cannabidaceae 1327, 1847
Cantharellaceae 2949, 3047
Capparidaceae 259, 303, 1252, 2493
Capparis decidua, spermidine alkaloid from 2493
C. masaikai, 2-hydroxyethyl glucosinolate from 1252
C. spinosa, indole glucosinolates from 259
Caprifoliaceae 2393
Carbohydrate content,
in leaves of *Nothofagus*, seasonal changes in 759
of developing pepino fruit 737

Carbohydrate metabolism, enzymes of, in soybean nodules 57
Carboxylic acids, aromatic, transformation of by *Panax* root cultures 1859
Carcinogenic norsesquiterpenes, from *Pteridium* 1605
Cardenolide,
biosynthesis of, in *Digitalis* 109
from *Cryptolepis* leaves 1203
Carica papaya, UDP-glucose:
phenol-β-D-glucosyltransferase from 2281
Caricaceae 2281
Carotenogenesis, in *Phycomyces*, in relation to phytoene dehydrogenation inhibition 1623
Carotenoid,
apo-, from *Bixa* seeds 3159
seco-, from cycad leaves 2793
Carotenoids, from *Pelagococcus* 3347
Carrageenan systems, in different nuclear phases of *Gigartina* 2937
Carrageenans, from *Cystoclonium* 71
Carthamus mareoticus, sesquiterpene fucopyranosides from 1263
(−)-Carvone, stereochemistry of reduction of endocyclic double bond of 3331
Caryophyllaceae 3572
Caryophyllidae 143
Cassia tora, anthraquinone glycosides from seeds of 211
Catalase, from tomato fruit 345
Catharanthus roseus,
biotransformation of geraniol by cells of 1087
biotransformation of synthetic compound by cell suspensions of 2345
C. trichophyllus,
epiallo-yohimbe alkaloids from hairy-root cultures of 1383
indole alkaloid production by *in vitro* root cultures of 2675
Celastraceae 173
Cell wall peroxidase, epigenetic control of by isoflavone in *Lupinus* 1331
Cell walls, of pangola grass, deacylation and cleavage of with borohydride 393
Centaurea arguta, sesquiterpenoids from 2204
C.collina, sesquiterpene lactones, flavonoids and coumarins from 2405
C. melitensis, germacranolide from 1975
Centella asiatica, triterpenoid trisaccharides from 2852
Centipeda minima, triterpenoid saponins from 1197
Centrolobium, diarylheptanoids from 2359
Ceratocapnos heterocarpa, cularine alkaloids from 3511
Ceratocystis fimbriata, antifungal fatty acid from *Colocasia* inoculated with 2613
Ceratozamia, *seco*-carotenoid from 2793
Cerbera manghas, oligolignans from 3473
Chaenactis douglasii, ^{35}S incorporation into dithiacyclohexadiene and thiophene polyines in 93
Chalcone
glucosides, from *Bidens* 247
β-hydroxy-, in enol form in *Tephrosia* 591
Chalcones,
from *Citrus* root bark 3558
from farinose exudate of *Primula* 295
from *Humulus* 1776
from *Lindera* 955
4-hydroxy-, oxygenation of, catalysed by peroxidase and light 235
2′-oxygenated, natural occurrence and synthesis of 681
Chara globularis, cytokinin from 337
Characeae 337
Chemotaxonomic survey of
acylphloroglucinols in *Helichrysum* 1119
alkali solubility of Gramineae lignins 1401
alkanes, from epicuticular waxes
in *Encephalartos* 3027
of Velloziaceae 1105
anthocyanins,
from *Podocarpus* receptacles 495
in European orchids 2127
malonated, in Malvaceae 499
bibenzyls and phenanthrenoids in Orchidaceae 3031
caffeine in *Coffea* and *Psilanthus* 829
carotenoids of *Pelagococcus subviridis* 3347
chlorogenic acids in *Coffea* and *Psilanthus* 829
coumarins from tissue cultures of Compositae 3003
cyanogenesis,
in *Acacia* subgenus *Aculeiferum* 817
in Proteaceae 821
cyanohydrin glycosides, in Passifloraceae 127
diarylheptanoids in *Centrolobium* 2359
diterpenoids
in *Ageratina* subgenus *Ageratina* 139
of *Jungermannia infusa* 3415
fatty acids,
in galactolipids of algae 805
in Papaveraceae and Fumariaceae 133
intraspecific variations of, in *Skeletonema* 811
flavonoids,
in *Arrhenatherum* 3035
in *Balsamorhiza* and *Wyethia* 501
in *Millettia ferruginea* 1897
in *Patersonia* 1891
in *Sideritis* 2141
hydrocarbons, aldehydes and triacylglycerols in *Botryococcus* 2349
p-hydroxyacetophenones in *Ageratina* subgenus *Ageratina* 139
1,3-hydroxybenzenes in mosses 1395
isocedrenes in *Perezia* 1887
isoflavonoids in *Centrolobium* 2359
legumin-like proteins in gymnosperms 1389
phenolics in Finnish *Salix* species 2115
phospholipids and diacylglyceryltrimethylhomoserines in green marine macrophytes 3341
polyacetylenes in *Artemisia* 'Vulgares' group 2687
3-prenylindoles in *Murraya*, biogenetic aspects of 147
ptaquiloside-related compounds in Pteridaceae 1605
pyrrolizidine alkaloids in *Senecio* 1635
Rhabdodendron 2355
saponins in *Cyclamen* 825
sesquiterpene lactones
in *Balsamita* populations 1115
in *Oldenburgia* and *Pleiotaxis* 3345
sesquiterpenoids in alpine firs 2681
sterol composition in Plumbaginales and Polygonales 143
triterpenes from Labiatae 1703
trypsin inhibitors from Araceae 3019
Chemotype, of *Cyperus rotundus* in Hawaii 1883
Chenopodiaceae 1321, 2261, 2559, 2583, 3265
Chill-sensitive plants, composition of non-esterified fatty acids in chloroplasts of 1813
Chitinase isoenzymes, induction of by ethylene in carrot culture 2989
Chitosan, optimal concentrations for elicitation of plant cell cultures 2651
Chlorogenic acid, intracellular accumulation of, in *Coffea* suspension cultures 2667
Chlorogenic acids, as possible taxonomic criteria in *Coffea* and *Psilanthus* 829
Chlorophora excelsa, stilbene dimer from 917
Chlorophyll biosynthesis, in mung bean, effect of selenium on 3321
Chlorophyta 337, 407, 625, 805, 1137, 1467, 2097, 2349, 2917, 2993, 3043, 3341

diacylglyceryltrimethylhomoserines and phospholipids from 3341
positional distribution of fatty acids in galactolipids of 805
Chloroplastic leucyl-*t*RNA synthetase, effect of stimulating factors on activity of 2927
Chondria tenuissima, bromo-diterpene from 3403
Chondrus crispus,
alterations in lipid metabolism of, caused by illumination 3295
lipid metabolism of, as modified by temperature 2053
lipids of 399
Chromane, from *Emericella* 1546
Chromatin, enhancement of availability, by cAMP 701
Chromenes from *Ageratina* 2520
Chromolaena connivens, *ent*-clerodanes from 641
Chromones,
from *Zanthoxylum* 1992
in *Aloe* exudate 3551
tri-2-(2-phenylethyl)-, from agalwood 3548
Chroomonas salina,
effect of temperature on lipid composition of 2943
lipid composition and biosynthesis in ageing cultures of 1355
Chrysophyceae 3347
Cicer arietinum,
enhancement of chromatin availability by cAMP in 701
phytotoxin production by *Aschochyta* in presence of cell extract of 2627
Cinnamamides, from *Clausena* 621
Cinnamoylputrescines, biosynthesis of, in callus cultures of *Nicotiana* 477
Cistaceae 183, 557
Citrullus colocynthis, cucurbitacin glycosides from 1268
Citrus
chalcone from root bark of 3558
flavanones from species of 3558, 3562
fragrant compounds from 1061
limonoid glucosides from 1717, 2777
terminal oxidase activity during fruit ripening of 2901
C. grandis, alkaloids and coumarins from 3574
C. limon, flavanoid changes in developing fruits of 799
C. paradisi,
biosynthesis of flavanones in detached fruits of 1627
glucosides of acidic limonoids from 2777
Clausena anisata,
coumarins from 585
quinolone and carbazole alkaloids from 1517
C. lansium,
cinnamamides from 621
triterpene alcohol from 943
Clavicipitaceae 771
Clematis montana, triterpene bisglycoside from 2511
ent-Clerodanes, see Diterpenes and Diterpenoids
Clitocybe acromelalga, 4-aminopyridine-2,3-dicarboxylic acid from 1133
Cnidium monnieri, coumarins from 227
Coconut milk, cAMP promoted protein phosphorylation of 329
Cocos nucifera, galactomannan degrading enzymes in mutant and normal nuts of 2269
^{14}C-Codeine metabolism, in *Papaver* cell cultures 1879
Coelogyne flaccida, phenanthrenes from 887
C. ochracea, phenanthropyrone from 3545
Coffea, chlorogenic acids and caffeine as possible taxonomic criteria in 829
C. arabica,
biotransformation of (*RS*)-tropic acid in cultures of 2333
intracellular accumulation of caffeine and chlorogenic acid in cultures of 2667
C. canephora, *N*-caffeoyltyrosine from green beans of 1989
Coix lachryma-jobi var. *ma-yuen*, phenolics from 883
Coleus forskohlii, diterpenoids from 859
C. zeylanicus, abietane diterpenoids from 3135
Colocasia antiquorum,
9,12,13-trihydroxy-(*E*)-10-octadecenoic acid from inoculated tubers of 2613
C. esculenta, trypsin inhibitors from 3019
Combretaceae 279, 2769
Combretum edwardsii, mollic acid arabinoside from 279
Compatible solutes, capacity of, to scavenge hydroxyl radicals 1057
Compositae 93, 107, 139, 243, 247, 265, 268, 271, 363, 371, 489, 501, 505, 517, 527, 531, 543, 641, 665, 745, 789, 843, 849, 938, 940, 1091, 1115, 1119, 1149, 1155, 1197, 1207, 1254, 1263, 1264, 1373, 1433, 1441, 1463, 1509, 1535, 1537, 1613, 1635, 1639, 1653, 1729, 1751, 1763, 1765, 1887, 1919, 1925, 1931, 1937, 1943, 1949, 1973, 1975, 2093, 2155, 2163, 2173, 2202, 2204, 2311, 2323, 2329, 2363, 2379, 2397, 2403, 2405, 2409, 2415, 2497, 2505, 2520, 2531, 2593, 2597, 2687, 2697, 2717, 2723, 2727, 2731, 2735, 2737, 2741, 2745, 2841, 2867, 2869, 2999, 3003, 3081, 3093, 3097, 3101, 3105, 3121, 3127, 3131, 3229, 3231, 3246, 3345, 3369, 3373, 3395, 3399, 3497, 3523, 3526, 3528, 3530, 3532
N-alkanes from Chilean species of 1254
effects of lignans from, on the mono-oxygenase activity of the European corn borer 1373
Concanavalin A-binding polypeptides, in *Canavalia* cotyledons 333
Coniferae 359, 495, 659, 765, 1167, 1173, 1237, 1389, 1675, 1743, 2071, 2477, 2617, 2681, 2863, 3073, 3185, 3553, 3566
Convolvulaceae 623, 1003, 2531
Conyza blinii, neoclerodane diterpene from 3131
Copaene-type sesquiterpene, from *Neomirandea* 938
Cordyline rubra, steroidal sapogenins from 3171
Cornaceae 3469
Cornus officinalis, sedoheptulose digallate from 3469
Cortisol, effects of, on membrane permeability 319
Corydalis pallida var. *sparsimamma*, alkaloids from 1245
Coscinium fenestratum, minor alkaloids from 1998
Coumarin,
4-aryl-, from *Coutarea* 1773
dimeric, from *Boenninghausenia* 1281
glucoside, from *Xeromphis* 1550
sesquiterpenoids, from *Ferula* 1761
Coumarinolignoid, from *Aleurites* 2459
Coumarins,
from *Aleurites* 2459
from *Artemisia* 1509
from *Aster* 1729
from *Centaurea* 2405
from *Citrus* stem bark 3574
from *Clausena* 585
from *Cnidium* 227
from *Edgeworthia* 221
from *Feronia* roots 1229
from *Gerbera*, biosynthesis of 2329
from *Merillia* 657
from *Murraya* 293, 2873
from tissue cultures of *Tanacetum* and *Artemisia* 3003
from *Trichocline* 2867
5-methyl, from *Nassauvia* 2867
Coumaronochromones, from *Euchresta* stems 2518
Coutarea hexandra, 4-arycoumarin from 1773
Crassulaceae 2187, 2433, 2813
Craterellus cornucopioides,
conversion of indole-3-ethanol to fatty acid esters in 2949
triacylglycerol from 3047
Crepis tectorum, sesquiterpene lactone glycoside from 2403

Crinum latifolium, pyrrolophenanthridine alkaloids from 2535
Crotalaria retusa, loss of viability associated with membrane phospholipid changes in pollen of 999
Croton cajucara, *nor*-clerodane diterpenes from 1667
C. megalocarpus, clerodane diterpene from 2759
C. sonderianus, *neo*-clerodane diterpenes from 3411
Cruciferae 41, 755, 1003, 1405, 2571, 2931, 3291, 3547
tryptic inhibitory activity in 755
Cryptolepis buchanani, cardenolide from leaves of 1203
Cryptomeria japonica, air pollution effects on tannin biosynthesis and predation in 439
Cryptomonadaceae 1355, 2943
Cucumis, non-esterified fatty acids in chloroplasts of 1813
C. sativus, stress-induced changes in sugar composition of cell walls of 389
Cucurbita,
ascorbate oxidase secretion by cultured cells of 117
stimulation of ascorbate oxidase secretion by calcium ions in cultures of 2655
C. maxima, esterase from fruit tissue of 379
Cucurbitaceae 117, 379, 389, 1268, 1271, 1369, 1711, 1721, 1813, 2655
Cucurbitacin glycoside, from *Citrullus* 1268
Cucurbitacins, as repressors of laccase induction 1369
Cudrania cochinchinensis, prenylated xanthones from 595, 2823
Cunila lythrifolia, triterpenoid acids from 1483
Cupressaceae 659, 1173, 2863, 3553, 3566
Curculigo orchioides, orcinol glycoside from 1771
Cussonia natalensis, anti-ulcer pentacyclic triterpene acid from 2851
Cutin, constituent acids of, from *Limonia* leaves 509
Cyanidium caldarium, variations in amino acids under different nitrogen conditions in 2891
β-Cyano-L-alanine synthase from *Vicia* 2285
Cyanogenic glucoside, malonated, from *Merremia* 623
Cyanogenic glycosides,
from *Acacia* subgenus *Aculeiferum* 817
from Flacourtiaceae and Passifloraceae 931
from the Proteaceae 821
Cyanohydrin glycosides,
from Passifloraceae 127
sulphate esters of, from *Passiflora* 1527
Cyanophyta 1565, 2891, 2913
Cycadopsida 2793, 3027
Cyclamen, saponins of 825
Cyclic nucleotide metabolism, influence of light on 2559
Cyclic nucleotides, from pea roots 2243
Cyclohexane oxides, from *Kaempferia* 1143
Cyclohexenone, from *Backhousia* 1259
Cyclohexylethyl glucosides, from *Forsythia* fruits 1495
Cyclopentanoid monoterpenes, from *Rehmannia* roots 2385
Cyclotrichium niveum, flavanones from 3561
Cylindrotheca fusiformis, malate dehydrogenase from 1579
Cymbopogon distans, eudesmanediol from 936
Cynachum versicolor, steroidal glycosides from root of 3175
Cyperaceae 1883
Cyperus rotundus, new chemotype of, from Hawaii 1883
Cyrtosperma chamissonis, trypsin inhibitors from 3019
Cystathionine synthesis, enzymology of, in comparison to selenocystathionine synthesis 51
Cysteine endopeptidase, from barley malt 3285
Cystoclonium purpureum, carrageenans from 71
Cystoseira zosteroides, tetraprenyltoluquinols from 215
Cytokinin
from culture filtrates of *Pseudomonas* 2603
from the green alga *Chara* 337
oxidase, from sweetcorn kernels 1313
Cytoplasmic leucyl-*t*RNA synthetase, effect of stimulating factors on activity of 2927
Cytotoxic
aporphines, from *Artabotrys* 2191
fatty acid, from *Pediastrum* 625
norditerpene, from *Salvia* 3542
phenanthrene-1,4-quinone, from *Sphenomeris* 1280
substances, from *Diospyros* 1541
Cyttaria, hetero-polysaccharide containing D-*arabino*-hexulosonic acid from 1645

D

Dalbergia lanceolaria, revised structure for isoflavone glycoside from 957
D. monetaria, proanthocyanidins from 2183
Datura innoxia, biotransformation of (*RS*)-tropic acid in cultures of 2333
D. metel, withanolide from 1769
Daucane esters, from *Ferula* 2711
Daucus carota,
biosynthesis of dihydroisocoumarin in elicitor-treated root of 1843
induction of chitinase isoenzymes by ethylene in cultures of 2989
prophenol oxidase from cell cultures of 1805
sesquiterpene from 639
Davallia divaricata, flavan-3-ol and proanthocyanidin allosides from 891
Davalliaceae 891
Decarboxylation, in flavanoid glycoside malonates 2531
Dehaasia triandra, alkaloids from 615
(+)-5,6-Dehydrolupanine, as key intermediate in lupin alkaloid biosynthesis 958
Delphinium barbeyi, alkaloids from 1521
D. macrocentrum, alkaloids from 919
D. occidentale × *D. barbeyi*, alkaloid from 1561
Dendrobium amoenum, 9,10-dihydrophenanthropyran from 950
D. crepidatum, bibenzyl from 1986
D. fuscescens, phenolic ester from 290
epi-Deoxyarteannuin B, synthesis of 3530
Deoxyribonuclease, chromatin-bound, from embryo axes of germinating pea 1339
Dermocybe, dihydroanthracenones from 2647
Deuteromycetes 283
Diacetylene, from *Hedera* 1256
Diacylglycerols, from elaiosomes of ant-dispersed seeds 2601
Diacylglyceryltrimethylhomoserines, of green marine macrophytes 3341
Diarylheptanoids, from *Centrolobium* species 2359
1,3-Diarylpropanes, from *Virola* and *Iryanthera* 239
Diatoms 811, 1579
Dibutyryl cyclic nucleotides, effect of on chloroplast components 2559
3,5-Dicaffeoylquinic acid, from pears 663
Dicentra cucullaria, lipids from elaiosomes of 2601
Dicyopteris, C_{11} and C_{15} volatiles from 636
Didiereaceae 1996
Digitalis purpurea, digitoxin synthesis in 109
Digitaria decumbens, deacetylation and cleavage of cell walls of, with borohydride 393
Digitoxigenin, biotransformation of, by *Strophanthus* cultures 1093
Dihydroanthracenones, from *Dermocybe* 2647
Dihydrobenzoxanthones, from *Artocarpus* 599
Dihydrochalcone, from *Lindera* 955
Dihydrochalcones, *C*-methyl-*C*-prenyl-, from *Platanus* 3191

Dihydroflavonol glycoside,
from *Petunia* pollen 897
from *Rosa* roots 2177
Dihydroflavonols, from *Bursera* 2467
Dihydroisocoumarin, biosynthesis of, in elicitor-treated carrot root 1843
Dihydrojasmonic acid metabolism, in barley shoots 1007
Dihydroparthenolide, witchweed germination stimulating activity of 2315
9,10-Dihydrophenanthropyran, from *Dendrobium* 950
Dihydrostilbene phytoalexins, from *Dioscorea* 773, 2621
Dihydroxycyclopentadienone, from *Trifolium* seeds 2499
DIMBOA,
from cereals, reaction of with papain 1597
from wheat, ingestion of by aphids 2307
reaction of, with amines 1831
Dioscorea, dihydrostilbene phytoalexins from 773
D. alata, dihydrostilbene phytoalexins from 2621
D. bulbifera, *p*-hydroxyacetophenones from 947
D. hispida, incorporation of 3-hydroxy-3-methylglutaric acid into dioscorine from 3325
Dioscoreaceae 773, 947, 2621, 3325
Dioscorine, incorporation of 3-hydroxy-3-methylglutaric acid into 3325
Diospyros diepenhorstii, piscicidal proanthocyanidin polymers from 1827
D. morrisiana, cytotoxic triterpene and binaphthoquinone from 1541
Dioxopiperazine, from *Penicillium* 929
o-Diphenols, in stressed *Prunus* leaves, accumulation of 1363
Diphenylmethylene derivative, from *Alangium* 3197
1,5-Diphenylsulphinyl-3-methyl-3-nitropentane, biotransformation of by *Catharanthus* 2345
Diplacus aurantiacus, geranyl α-pyrone and geranylflavanone from 3493
Diploclisia glaucescens,
bidesmosidic triterpenoid saponin from 2783
ecdysterone from stem of 1073
Discomycetes 1645
Disulphides, from *Ferula* 1761
Diterpene
acid, from *Viguiera* 2409
alcohol, from *Halimium* 183
glycosides,
from *Rabdosia* 2427
from *Tinospora* 273, 2419
lactones, from *Gelonium* 1181
malonic esters, from *Parentucellia* 651
Diterpenes,
beyerane, from *Fleischmannia* 2741
bis-, from *Calceolaria* 2844
brominated, from *Chondria* 3403
clerodane,
from *Baccharis* 1537
from *Croton* 2759
ent-clerodane,
from *Ageratina* subgenus *Ageratina* 139
from *Baccharis* 531
from *Chromolaena* 641
from *Neomirandea* 938
neo-clerodane,
from *Conyza* 3131
from *Croton* 3411
nor-clerodane, from *Croton* 1667
from *Calceolaria* 571, 2844
from *Euphorbia* 553, 3421
from *Helichrysum* 543
from *Salvia* 177, 2846
from *Sideritis* 1976
kaurane, from *Smallanthus* 2727
ent-kaurene and norkaurene, from *Platycarpha* 2745
labdane,
from *Brickellia* 2741
from *Waitzia* 1943
ent-13-*epi*-manoyl oxide, microbiological transformation of, by *Gibberella* 1851
nor-, cytotoxic, from *Salvia* 3542
9-*epi*-pimarane, from *Calceolaria* 2844
Diterpene acid, clerodane, from *Jungermannia* 2507
Diterpenoid alcohols, malonyl esters of, from *Parentucellia* 651
Diterpenoids,
abietane,
from *Coleus* 3135
from *Salvia* 567, 1681, 1685, 3139
accumulation of, in cybrids of *Nicotiana* 3015
beyerane, from *Elaeoselinum* 1955
chloroclerodane, from *Teucrium* 1453
clerodane, from *Teucrium* 1069
ent-clerodane, from *Salvia* 561
neo-clerodane, from *Teucrium* 1453, 2763, 3539
from *Agathis* wood 1675
from *Azadirachta* stem bark 1177
from *Calocedrus* leaves 1173
from *Coleus* 859
from *Dypterix* 642
from *Jungermannia* 3415
from *Rabdosia* 189, 851, 855, 1163, 1671, 1691, 1978, 2423, 2427, 2753, 3235, 3405, 3534, 3536
from *Sideritis* 1267
labdane, from *Halimium* 557
ent-labdane, from *Ophryosporus* 1463
phytane-type, from *Porella* 1661
trachylobane, from *Jungermannia* 1533
Dithiacyclohexadiene, biosynthesis of, in *Chaenactis* 93
Dithiacyclohexadienes, from *Ambrosia* 3523
DNA synthesis, study of, by use of osmotically permeabilized plant protoplasts 323
Drechslera maydis, host-selective phytotoxin produced by 2089
Dregea sinensis var. *corrugata*, pregnane triglycoside ester from 1273
Duboisia myoporoides × *D. leichhardtii*, 7β-hydroxyhyoscyamine from 3507
Dypterix odorata, diterpenoids from 642

E

Ebenaceae 1541, 1827
Ecballium elaterium, cucurbitacins from, as repressors of laccase induction 1369
Ecdysterone, from *Diploclisia* stem 1073
Echinacea, cyanidin 3-malonylglucoside from 3246
E. angustifolia, alkamides from roots of 505
Edgeworthia chrysantha, coumarins from 221
Elaeoselinum asclepium, beyerane diterpenoids from 1955
Elemane, from *Onopordon* 1264
Ellagitannins,
dimeric, from *Rosa* 2451
from *Alnus* leaves 3179
Embryophyta, phospholipids from 3341
Emericella heterothallica, chromane and α-pyrone from 1546
Encephalartos, alkanes of foliar epicuticular waxes in 3027
Endopeptidase, of dormant lupin seed 1025
Entada phaseoloides, sulphur-containing amide from 881
Entandrophragma candollei, tetranortriterpenoids from bark of 2855
Enzymatic transesterification, between wax esters and sterols in *Sinapis* 2931

Enzyme
inhibitors of sterol biosynthesis, as growth regulators of plants and fungi 1791
system, in *Ulva*, producing long chain aldehydes 407
Enzymes,
α-acid oxidase, inhibition of, by polyphenols 1327
alcohol dehydrogenase, from soybean 1335
allantoinases, from *Vigna*, inhibition of 47
alliin lyases, of garlic and onion 729
α-amylases, polymorphism of 2921
ascorbate free radical reductase 715
asparaginase, from *Pisum* leaves 2275
carbohydrate metabolism enzymes, in soy bean nodules 57
catalase, from tomato fruit 345
cell wall scopoletin peroxidase 1331
β-cyano-L-alanine synthase, from *Vicia* 2285
cysteine endopeptidase, from barley malt 3285
cytokinin oxidase, from sweetcorn kernels 1313
deoxyribonuclease, chromatin-bound, from pea 1339
endopeptidase, of dormant lupin seed 1025
esterase, from *Cucurbita* fruit tissue 379
galactomannan degrading enzymes, in coconut 2269
α-galactosidases, from cowpea 2047
β-galactosidases, purification of by affinity chromatography 2587
β-glucosidase, from cassava 721
α-glucosidases, of suspension-cultured *Beta* cells 2583
glucosyltransferase, from *Pinus* pollen 359
glutamate dehydrogenase and glycollate oxidase, in *Lemna* 349
glycosidases, from Leguminosae 355
6β-hydroxyhyoscyamine epoxidase, from *Hyoscyamus* roots 1077
α-ketoglutarate dehydrogenase, from cauliflower mitochondria 3291
lipoxygenases 1019, 2577
lysozyme, from kiwi fruit 2267
lysozymes, from *Asclepias* latex 1345
malate dehydrogenase, from *Cylindrotheca* 1579
mannanase, from *Lactuca* 363, 371
endo-β-mannanase, in tomato fruit 3277
N-methylputrescine oxidase, from *Nicotiana* 1573
monophenolase activity, of wheat 341
NADH-dehydrogenase, inhibitor of from *Senecio* 2311
nitrate reductase, from spinach 2261
oxalate oxidase, in grain sorghum roots 2909
peroxidase, from horseradish, tiron as substrate for 41
phosphate-repressible alkaline phosphatase, from *Neurospora* 3281
phosphoenolpyruvate carboxykinase, from *Panicum* 1349
phosphoglycolate phosphatase, from *Pisum* and *Phaseolus* 719
polyamine oxidase,
from barley 2255
from maize cell walls 45
from oat 2045, 2255
poly(A)polymerase, *de novo* synthesis of,
in germinated wheat 1031
in mung bean hypocotyls 1037
polyphenol oxidase,
from apple 2903
from spinach 1321
prophenol oxidase, from *Daucus* cultures 1805
protein kinase, from germinated barley seeds 365
proteinase inhibitor, from *Artocarpus* seeds 725
RNA polymerase activity, enhancement of, by cAMP 701
RuBP carboxylases, in cassava cultivars 1043
starch synthase and branching enzyme, from castor bean 1809
terminal oxidase activity, during orange ripening 2901
tyramine feruloyl transferase, from TMV-inoculated tobacco 733
UDP-glucose:phenol-β-D-glucosyltransferase, from papaya fruit 2281
Enzymology, of cystathionine and selenocystathionine synthesis 51
Epaltes gariepina, furoeudesmanes from 3097
E. mexicana, eudesmanes from 1973
(−)-Epicatechin, production of, by *Uncaria* callus cultures 1099
Epichloe typhina, ring B aromatic sterol from 771
Epicuticular wax esters, from maize 165
Epimedium diphyllum,
flavonol glycoside from 2527
ionone and lignan glycosides from 3483
1α,10-Epoxyfuranoeremophilane, NADH-dehydrogenase inhibiting, from *Senecio* 2311
Eremanthus, sesquiterpene lactones from 1441
Eremophila,
production of verbascoside in callus tissue of 1871
sesquiterpenes from 1425
Eremophilanolides, see Sesquiterpene lactones
Ergosterol analogue, glycoside of, from *Tylopilus* 945
Eria convallarioides, 4α-methylsterol from 1487
Erythrina eriotriocha, 8-prenylluteone from 2522
Erythroxylaceae 671, 3211
Erythroxylum hypericifolium, alkaloids from 671, 3211
Eschscholzia californica, alkaloid production in 1101
Essential oils,
from *Amyris* 1909
from *Citrus* 1061
from *Cymbopogon* 936
from *Feijoa* fruit peel 1529
from *Ferula* rhizomes 634
from Pinaceae needles 765
from *Thryptomene* 3543
Esterase, from *Cucurbita* fruit tissue 379
Eucalyptus perriniana, biotransformation of (*RS*)-tropic acid in 2333
Euchresta formosana,
coumaronochromones from 2518
flavanones from roots of 2811
Eudesmanediol, from *Cymbopogon* 936
Eudesmanolides, see Sesquiterpene lactones
Euglena gracilis, effect of stimulating factors on leucyl-*t*RNA synthetase from 2927
Eulophia nuda, benzylated phenanthrenes from 2463
Eupatorium cannabinum, benzofurans in root cultures of 789
Euphorbia antiquorum,
diterpene from 553
triterpenoids from 1695
E. caducifolia, cycloartane triterpenoid from 1982
E. characias, biotransformation of geraniol in 1087
E. helioscopia, diterpenes from 3421
E. supina, triterpenoids from 1699, 3149
E. tirucalli, taraxerane-type triterpene from 1193
Euphorbiaceae 553, 960, 1043, 1087, 1181, 1193, 1254, 1667, 1695, 1699, 1809, 1980, 1982, 2059, 2439, 2443, 2459, 2635, 2759, 3149, 3411, 3421
N-alkanes from Chilean species of 1254
Euphydryas phaeton, sequestration of *Aureolaria* iridoids by 1601
Eurotiaceae 655, 1546
Eurycoma longifolia, quassinoid glycoside from 2857
Euryops arabicus, transformation products of furoeremophilanes from 843
Exchange reactions, in flavonoid glycoside malonates 2531

F
Fabaceae, see Leguminosae
Fagaceae 759, 3437
Fagopyrum esculentum, phenolic biosynthesis in 469
Falcarinol, 11,12-dehydro-, from *Hedera* 1256
trans-β-Farnesene, production of, by hop callus 1847
Farnesyl-homogentisic acid derivatives, from *Otoba* 579
Fatty acid
  composition,
    in low linolenate mutants of soybean 411
    in seeds of Papaveraceae and Fumariaceae 133
  esters,
    in *Artocarpus* latex 2197
    in *Craterellus* 2949
    phenolic, from *Buddleja* stem bark 2693
Fatty acids,
  antifungal, from inoculated *Colocasia* 2613
  from elaiosomes of ant-dispersed seeds 2601
  from *Myriophyllum* 629
  in developing winged bean seeds 2303
  non-esterified, in chloroplasts of chill-sensitive plants 1813
  of *Mentha* seed lipids 260
  of *Skeletonema*, intraspecific variations in 811
  polyunsaturated, from *Pediastrum* 625
  positional distribution of, in algae galactolipids 805
Feeding deterrency, to aphids, by hydroxamic acids from wheat 2307
Feijoa sellowiana, volatile flavour constituents from 1529
Feronia limonia, coumarins from 1229
Ferredoxins, from *Spinacia* and *Porphyra*, reaction of with hydrogen peroxide 3265
Ferro-phenolic complex production, by *Nocardia* 415
Ferula assa-foetida, coumarin-sesquiterpenoids and disulphides from 1761
F. communis var. *brevifolia*, daucane esters from 2711
F. jaeschkeana,
  essential oil from 634
  sesquiterpene esters and sesquiterpene-coumarin ethers from 3389
F. linkii, carotane sesquiterpene esters from 1649
Flacourtiaceae, cyanogenic glycosides from 931
Flavanocoumarins, from *Phyllocladus* 2477
Flavan-3-ol allosides, from the fern *Davallia* 891
Flavanones,
  biosynthesis of, in detached grapefruit 1627
  from *Citrus* 3558, 3562
  from *Cyclotrichium* 3561
  from *Helichrysum* 1119
  from *Lespedeza* root bark 3564
  from *Lotus* 1749
  from *Viguiera* 2409
  geranyl-, from *Diplacus* 3493
  prenylated, from *Euchresta* roots 2811
Flavanophenylpropanoids, from *Phyllocladus* 2477
Flavone
  C-glycosides, from *Abrus* 299
  O- and *C*-glycosides, from *Setaria* 2471
Flavones,
  from *Artemisia* 2869
  from farinose exudate of *Primula* 295
  from leaves of *Arrhenatherum* species 3035
  from *Limnophila* 1778
  methoxylated, from *Artemisia* 1509
Flavonoid
  aglycones,
    from *Calceolaria* 2213
    from *Jasonia* 665
  analysis, for verification of *Sideritis* hybrids 2141
  biocides, structure/activity relations of 87
  glycoside, from *Rosa* roots 2177
  glycoside malonates, decarboxylation and exchange reactions in 2531
  lactates, from *Marrubium* leaves 3201
Flavonoids,
  antifungal, from *Helichrysum* 1613
  antimicrobial, from *Psiadia* 2323
  changes of, in developing lemons 799
  external, from *Polanisia* leaves 303
  from *Artemisia* 2173
  from *Balsamorhiza* 501
  from *Centaurea* 2405
  from *Citrus* root bark 3558
  from *Humulus* 1776
  from *Lindera* 955
  from *Millettia* 1897
  from *Ononis* 161
  from *Patersonia* 1891
  from *Polypodium* 1225
  from *Pulicaria* 2717
  from *Salvia* 2871
  from *Silybum* flowers 1751
  from *Tephrosia* 1291, 3207
  from *Wyethia* 501
  highly oxygenated, from *Melicope* 245
  2′-oxygenated, natural occurrence and synthesis of 681
  prenylated, from *Bursera* 2467
  C-prenylated, from *Platanus* 3191
Flavonol
  from *Millingtonia* flowers 1555
  glycosides,
    acetylated,
      from *Kalanchoe* 2813
      from *Vicia* 1993
    diacylated, from *Libocedrus* 3566
    from *Epimedium* 2527
    from *Lilium* 301
    from *Lysimachia* 2215
    from *Petunia* pollen 897
    from *Sedum* 2187
    from *Solanum* 1755
    malonated, from pears 663
    8-methyoxy-, from almond pollen 1901
  triglycosides, from *Anthyllis* 1513
Flavonols,
  from *Blumea*, reassessment of structures of 243
  C-methyl-, from *Alluaudia* 1996
Flavour precursors, of onions, biosynthesis of 455, 461
Fleischmannia hymenophylla, beyerane diterpene from 2741
Flindersia australis, phenylpropanoids from 3242
Forsythia suspensa, cyclohexylethyl glucosides from fruits of 1495
Fossil resin, of extinct Podocarpaceae 1167
Fragaria ananassa,
  furaneol glucoside from 631
  sterols from fruit of 1276
Frost resistance, in relation to carbohydrate content in *Nothofagus* 759
Fruticulin B, from *Salvia*, structure revision of 567
Fucoxanthin, isolation procedure for 2797
Fucus serratus, isolation procedure for fucoxanthin from 2797
Fumariaceae 133, 251, 1245, 2601, 3511
  fatty acid composition of seeds from 133
Fungal metabolites, from *Fusarium* 283
Fungi 73, 83, 193, 283, 311, 655, 771, 773, 923, 929, 945, 1053, 1303, 1369, 1427, 1491, 1546, 1621, 1623, 1645, 1791, 1851, 2079, 2089, 2501, 2627, 2803, 2949, 2963, 3047, 3240, 3281, 3317, 3519
  interactions of, with higher plants 311
Fungicidal enol esters of caffeic acid, in Labiatae cultures 2109

Furaneol glucoside, from strawberries 631
Furanocoumarins, tolerance and metabolism of, by *Gibberella* 2963
Furanoid diterpene glucoside, from *Tinospora* 2419
Furoeremophilanes,
from Mexican *Senecio* species 1149
transformation products of, from *Euryops* 843
Fusarium graminearum, acetylated mycotoxins from 83
F. sambucinum, tolerance and metabolism of furanocoumarins by 2963
F. solani, quinonoids from 283

G
Galactomannan degrading enzymes, in coconut endosperm 2269
α-Galactosidases, from *Vigna* 2047
β-Galactosidases, purification of, by affinity chromatography 2587
Galium, formation of *o*-succinylbenzoic acid from *iso*-chorismic acid in cultures of 1381
Gallotannin, from *Cornus* 3469
Galloylhomoarbutin, from *Pyrola* 607
Ganoderma applanatum, bitter triterpenoids from 193
Garcinia pedunculata, polyisoprenylated benzophenones from 1233
Geigeria, sesquiterpene lactones and other terpenes from 3105
Gelonium multiflorum, diterpene lactones from 1181
Gelsemium elegans, indole alkaloid from 2827
Gentiana pyrenaica,
phthalide glucoside from 1759
secoiridoid glucoside and its vanillate ester from 2199
G. verna, iridoids from 2503
Gentianaceae 1759, 2199, 2503, 2819, 3569
Geraniol
biotransformation, by plant cell suspensions 1087
glycoside, from *Hypoxis* 263
Gerbera jamesonii hybrid, coumarin biosynthesis in 2329
Germacranolides, see Sesquiterpene lactones
Gibberella fujikuroi, microbiological transformation of *ent*-3β-hydroxykaur-6,16-diene by 1053
ent-13-*epi*-manoyl oxide diterpenes by 1851
G. pulicaris,
detoxification of potato phytoalexin by 431
tolerance and metabolism of furanocoumarins by 2963
Gibberellic acid, response of wheat monophenolase activity to 341
Gigartina skottsbergii, carrageenan systems in different nuclear phases of 2937
Gigartinaceae 2937
Ginkgo biloba, legumin-like proteins from 1389
Ginkgoaceae 1389
Gladiolus segetum, anthraquinones from 281
Glandular trichomes,
light-dependent formation of, in thyme seedlings 741
of *Helianthus*, sesquiterpenes from 745
Glaucolides, see Sesquiterpene lactones
Glucopyranoses, triacyl, from *Bahia* 1639
D-Glucose uptake, by developing maize endosperms 3271
β-Glucosidase, from cassava 721
α-Glucosidases, of sugarbeet cell suspensions 2583
Glucosinolates,
butyl- and isobutyl-, from *Brassica* seeds 1405
2-hydroxyethyl, from *Capparis* 1252
indole, from *Capparis* 259
Glutamate dehydrogenase, from *Lemna*, influence of nitrogen and light on 349
L-Glutamine uptake, by developing maize endosperms 3271
γ-Glutamyl peptides, as intermediates in the biosynthesis of *Allium* flavour precursors 455
Glycan, reticuloendothelial system-activating, from *Malva* seeds 2609
Glycerol tridehydrocrepenynate, from *Craterellus* 3047
Glycine max,
alcohol dehydrogenase from 1335
biotransformation of geraniol by cell suspensions of 1087
degradation of trypsin inhibitors during germination of 1013
enzymes of carbohydrate metabolism in nodules of 57
fatty acid composition in low linolenate mutants of 411
pterocarpan biosynthesis in 113
Glycine-betaine distribution, in water-stressed and unstressed barley leaves 419
Glycoalkaloids, steroidal, from *Solanum*, acetylcholinesterase-inhibitory activity of 2631
Glycollate oxidase, from *Lemna*, influence of nitrogen and light on 349
Glycollic acid production, extracellular, by the picoplankton *Stichococcus* 2993
Glycosidases from Leguminosae, hydrophobic and lectin binding properties of 355
Glycosmis pentaphylla, C_{18} carbazole alkaloid from 677
Glycosylation, of phenolics in *Panax* root cultures 3009
C-Glycosylflavones, from leaves of *Arrhenatherum* species 3035
Glycyrrhiza lepidota, antimicrobial bibenzyl from 3556
Glyphosate, effects of, on shikimate pathway in *Abutilon* 695
Gramineae 45, 121, 165, 323, 341, 385, 393, 419, 447, 771, 883, 936, 1007, 1031, 1307, 1313, 1349, 1401, 1585, 1597, 1831, 2045, 2255, 2307, 2471, 2565, 2621, 2885, 2909, 2921, 2959, 3035, 3271, 3285
reaction of DIMBOA from, with papain 1597
Growth regulators of plants and fungi, based on sterol biosynthesis inhibitors 1791
Guaiacum officinale, triterpene saponins from 2169
seco-Guaianolide, from *Postia* 3127
Guaianolides, see Sesquiterpene lactones
Guettarda platypoda, quinovic acid glycosides from 199
Guttiferae 967, 1233, 1827, 2211, 2483
xanthones from 967
Gynostemma pentaphyllum, sterols from 1271

H
Haemanthus kalbreyeri, isocarbostril alkaloids from 611
H. multiflorus, alkaloid from 3248
Halenia elliptica, xanthone glucosides from 2819
Halimium verticillatum, labdane diterpenoids from 557
H. viscosum, diterpene alcohol from 183
Haloragaceae 629
Hapalosiphon fontinalis, indole alkaloids from 1565
Haploclathra, xanthone from species of 2211
Hedera helix, 11,12-dehydrofalcarinol from 1256
Heliangolides, see Sesquiterpene lactones
Helianthus annuus,
lipid characterisation in seeds of mutant of 2597
oleate desaturation in seeds of genotypes of 2593
sesquiterpene lactones from capitate glandular trichomes of 745
Helichrysum,
acylphloroglucinols, terpenoids and flavanones from South African species of 1119
di- and sesquiterpenes from 543
H. decumbens, antifungal phloroglucinols and flavonoids from 1613
Heliothis armigera, diterpenoids from *Teucrium* with antifeedant activity against 1069

Helipterum, sesquiterpene lactones from 517
Hemerocallin, revised structure of 1825
Hemerocallis, stypandrol from species of 1825
Hepaticae 867, 1261, 1533, 1661, 2507, 3377, 3383, 3415
Herbicides,
effects of glyphosate on shikimate pathway 695
phenol polymerization induction by enzymatically reduced paraquat 711
Hertia pallens, furoeremophilanes from 3231
Hibiscus syriacus, malonated anthocyanins from 1503
HMG-CoA reductase inhibitor, from *Avrainvillea* 2917
Homoisoflavanones, from *Bellevalia* 3244
Hordein-degrading cysteine endopeptidase, from barley malt 3285
Hordeum, distribution of glycine-betaine and proline in water-stressed leaves of 419
H. vulgare,
cysteine endopeptidase from malt of 3285
metabolism of dihydrojasmonic acid in shoots of 1007
polyamine oxidase in primary leaves of 2255
protein kinase from germinated seeds of 385
Humulus lupulus,
chalcones from 1776
trans-β-farnesene production by callus of 1847
Hydrocarbon, C_{31}, from *Botryococcus* 3043
Hydrocarbons, in A race strains of *Botryococcus* 2349
Hydroquinone, 2-(*E*-3-methyloxiranyl)-, diesters of, from *Pimpinella* 1531
Hydroxamic acids,
changes in levels of, in aphid-infested wheat 447
from wheat plants, ingestion of, by aphids 2307
reactions of,
with amines 1831
with papain 1597
p-Hydroxyacetophenones, from *Ageratina* subgenus *Ageratina* 139
1,3,5-Hydroxybenzenes, in mosses 1395
p-Hydroxybenzoic acid,
derivatives of, from *Talaromyces* 655
incorporation of shikimic acid into, in cultures of *Lithospermum* 2643
Hydroxybutenolide, from *Sphagnum* 1725
4-Hydroxychalcones, oxygenation of, catalysed by peroxidase and light 235
Hydroxycinnamic acid esters, production of, in cultures and plants of *Leontopodium* 489
Hydroxycinnamic acids,
esters of with phenylethylalcohol glycosides, from *Rehmannia* 875
isopentenyl esters of, from poplar buds and propolis 871
1α-Hydroxycycloartenoid glycoside, from *Combretum* 279
6β-Hydroxyhyoscyamine epoxidase, from cultured roots of *Hyoscyamus* 1077
7β-Hydroxyhyoscyamine, from *Duboisia* and *Hyoscyamus* 3507
4-Hydroxyisoleucine, from fenugreek, stereochemistry of 1835
ent-3β-Hydroxykaur-6,16-diene, preparation of and transformation of by *Gibberella* 1053
Hydroxyl radicals, capacity of compatible solutes for scavenging of 1057
4-Hydroxy-5-methylcoumarin, biosynthesis of, in *Gerbera* hybrid 2329
3-Hydroxyoctyl glucoside, from Jonathan apples 157
Hydroxyphenylethanol glycosides, production of, in *Eremophila* callus tissue 1871
3-Hydroxyuridine, as an allelopathic factor, from *Baillonella* 1365
Hyoscyamus albus, 7β-hydroxyhyoscyamine from hairy roots of 3507
H. niger, 6β-hydroxyhyoscyamine epoxidase from cultured roots of 1077
Hyphomycetes 83, 2079
Hypnea musciformis, diketosteroid from 3237
Hypochoeris radicata, sesquiterpene glucosides and phenylbutanoid glycoside from 1919
Hypoxidaceae 153, 263, 2807
Hypoxis acuminata, geraniol glycoside from 263
H. nyasica, phenolic glucosides from 2807
H. rooperi, phenolic pent-1-en-4-yne from 153

I
Ilex rotunda, triterpenes from 1479
Immunologically active acylphloroglucinols, from *Jatropha* latex 3439
Immuno-stimulating arabinogalactans, from *Calendula* 2379
Indigofera suffruticosa, nitropropanoyl-glucopyranoside from 1251
Indole glucosinolates, from *Capparis* 259
Indole-3-ethanol, conversion of to fatty acid esters in *Craterellus* 2949
Indolesesquiterpenes, from *Uvaria* 2217
Insect-antifeedant
diterpenoids, from *Teucrium* 1069
volatile, from *Medicago* 3311
Insecticidal monoterpene, from *Plocamium* 77
Inula helenium, sesquiterpene lactones from 1763
I. racemosa, biologically active sesquiterpene lactones from 2093
Iodine, in seaweeds, seasonal variation, bioaccumulation 3307
Ionone derived glycosides,
from *Epimedium* 3483
from *Sonchus* 3399
Iphiona scabra, sesquiterpene xylosides from 2202
Ipomoea batatas, membrane damage of, by exposure to *t*-butylhydroperoxide 1003
Iridaceae 281, 1891
Iridoid
biosynthesis, in *Verbena* 97
glucoside, from *Nyctanthes* 1913
glucoside esters, from *Anarrhinum* 3227
glycosides,
caffeoyl esters of, from *Premna* 513
from *Asystasia* 3361
from *Aureolaria*, sequestration of, by butterflies 1601
from cultured root tissue of *Rehmannia* 2331
from *Rehmannia* 2149, 2331, 2705
from *Viburnum* 2393
Iridoids,
acylated, from *Premna* 3063, 3069
from *Gentiana* 2503
from *Physostegia* 3055
from *Scrophularia* 2701
from *Thunbergia* 3059
seco-,
from *Gentiana* 2199
from *Jasminum* 1413
from *Ligustrum* 1409
Iryanthera, 1,3-diarylpropanes from 239
Isatis tinctoria, identity of qingdainone from 3547
Isocedrenes, from Chilean *Perezia* species 1887
Isoflavans, from *Millettia* 913
Isoflavone
glycoside, from *Dalbergia* 957
5-glycoside, from *Prunus* peduncle 1560
prenylated, from *Erythrina* 2522
Isoflavonoid metabolism, by the fungus *Botrytis* 2079

Isoflavonoids,
antifungal activity of 3317
from *Centrolobium* 2359
from *Lotus* 1749
from *Lupinus* roots 901
from *Tephrosia* 3207

J
Jaborosa leucotricha, 19-hydroxywithanolide from 2514
Jadiffine, from *Vinca*, 2-dimensional NMR study of 308
Jasminum mesnyi, secoiridoid glucosides from 1413
Jasmonic acid analogues, from *Vicia* 339
Jasmonic acids, from the fungus *Botryodiplodia* 1303
Jasonia montana, flavonoid aglycones from 665
Jatropha multifida, acylphloroglucinols from 2439
Jeffersonia diphylla, lipids from elaiosomes of 2601
Juglandaceae 2799
Juglans, 1,4-naphthoquinones from 2799
Jungermannia exsertifolia subsp. *cordifolia*, trachylobane diterpenoid from 1533
J. infusca,
diterpenoids from 2507, 3415
Jungermanniales 2507, 3383, 3415
Juniperus sabina, acetylated lignans from 659
J. thurifera, lignans from 2863
Juvabione-related sesquiterpenoids, from *Abies* 2617

K
Kaempferia, cyclohexane oxides from 1143
Kalanchoe gracilis, acetylated flavonol glycosides from 2813
Kallstroemia tribuloides, spirostanes from 1985
Kaurenes, from *Platycarpha* 2745
ent-Kaurenoids, from *Rabdosia* 1691
α-Ketoglutarate dehydrogenase, from cauliflower mitochondria 3291
Krameria lanceolata, neolignans and *nor*-neolignans from 1959
Krameriaceae 1959

L
Labiatae 79, 177, 189, 561, 567, 741, 851, 855, 859, 1069, 1163, 1267, 1453, 1483, 1671, 1681, 1685, 1691, 1703, 1976, 1978, 2109, 2141, 2206, 2423, 2427, 2447, 2753, 2763, 2846, 2871, 2955, 3055, 3135, 3139, 3201, 3235, 3405, 3534, 3536, 3539, 3542, 3561
enol esters of caffeic acid in 2109
Laburnum anagyroides, quinolizidone alkaloid from 673
Laccase formation, by *Botrytis*, inhibition of induction of by cucurbitacins 1369
Lactarius, alkaloidal pigments from 3519
L. sanguifluus, guaiane sesquiterpene from 2501
L. scrobiculatus, sesquiterpenes from 1427
Lactones, from *Actinodaphne* 626, 1905
Lactuca sativa, synthesis of mannanase in 363, 371
Laggera alata, eudesmanes from 3097
Lamiaceae, see Labiatae
Lanceolarin, from *Dalbergia* 957
Lardizabalaceae 2663
Lauraceae 615, 626, 661, 705, 952, 955, 1905, 1991, 2209, 2516, 2641, 3477, 3577
Laurencia caespitosa, halogenated sesquiterpenes from 1417
L. intricata, non-terpenoid bromoallenes from 2145
L. obtusa, bromochlorinated chamigrene sesquiterpenes from 3365
L. pinnatifida, C_{15} acetogenin from 647
Lectin, from *Ariopsis* tubers 2897
Lecythidaceae 3547
Leguminosae 47, 51, 57, 113, 161, 207, 211, 278, 299, 319, 333, 339, 355, 411, 421, 465, 591, 642, 673, 701, 719, 817, 863, 881, 901, 913, 957, 958, 999, 1013, 1019, 1025, 1037, 1087, 1219, 1251, 1287, 1291, 1331, 1335, 1339, 1379, 1513, 1749, 1835, 1897, 1993, 2039, 2047, 2183, 2219, 2243, 2275, 2285, 2303, 2341, 2359, 2369, 2499, 2518, 2522, 2529, 2533, 2559, 2627, 2811, 2927, 3207, 3311, 3321, 3556, 3564
hydrophobic and lectin binding properties of glycosides from 355
Lemna minor, influence of nitrogen and light on glutamate dehydrogenase and glycollate oxidase in 349
Lemnaceae 349
Leontopodium alpinum, hydroxycinnamic acid ester production in cultures and plants of 489
Lespedeza davidii, flavanones from root bark of 3564
Leuceria, onoseriolides from 271
Leuzea centauroides, polyacetylenes from 2697
Libocedrus bidwillii, diacylated flavonol glycoside from 3566
Licaria aurea, neolignans from 2209
L. chrysophylla, neolignans from 3477
Lignan glycosides,
from *Epimedium* 3483
from *Parsonia* 1737
Lignans,
acetylated, from *Juniperus* 659
bisnor-, from *Pachypodanthium* 231
from *Actinodaphne* 952
from Asteraceae, effects of on mono-oxygenase activity of the European corn borer 1373
from *Calocedrus* leaves 3553
from *Juniperus* 2863
from *Podolepis* 3497
from *Rabdosia* 2447
from *Schisandra* 1774
oligo-, from *Cerbera* 3473
Lignins,
from Gramineae, alkali solubility of 1401
possible presence of, in mosses 1395
Lignoids, from *Nectandra* species 1991
Ligustrum japonicum, secoiridoid glucoside from 1409
Liliaceae 284, 301, 751, 1825, 3163, 3217, 3244, 3453, 3551
Lilium, lipids and steroidal glycosides from 3453
L. cordatum, flavonol and phenylpropanoid glycosides from 301
L. longiflorum, structural analysis of sporopollenin from, by ^{13}C NMR spectroscopy 751
L. pardarinum, steroidal saponins from 3163
Limnophila rugosa, flavone from 1778
Limonia acidissima, constituent acids of leaf cutin of 509
Limonoid glucosides, from *Citrus* 1717, 2777
Lindera umbellata, chalcone and dihydrochalcone from 955
Lindsaeaceae 1280
Lipid
biosynthesis, in alkadiene-producing strain of *Botryococcus* 2097
changes, in ageing cassava roots 2059
characterisation, in seeds of sunflower mutant 2597
composition and biosynthesis, in *Chroomonas* cultures 1355, 2943
metabolism,
alterations in, by illumination of marine red algae 3295
of red algae as modified by temperature 2053
Lipids,
from *Lilium* 3453
of marine red algae 399
Lipoxygenase
activity, spectrophotometric assay of inhibition of 2577

isoenzymes, of French bean pericarp, chlorophyll-bleaching activity of 1019
Lithospermum erythrorhizon,
enzymatic regulation of shikonin biosynthesis in 1873
incorporation of shikimic acid into *p*-hydroxybenzoic acid in 2643
Localization, intracellular, of biosynthetic pathway of flavour precursor in onion 461
Loganiaceae 1553, 2221, 2693, 2827
Longipinenes, from *Stevia* 265
Lophira lanceolata, biflavonoids from 1557
Lotus creticus, flavanone and isoflavonoids from 1749
(+)-Lupanine production in green callus of *Thermopsis* 2341
Lupinus albus,
endopeptidase of dormant seed of 1025
epigenetic control of peroxidase by isoflavone in 1331
isoflavonoids from roots of 901
L. luteus, initiator transfer ribonucleic acid from 2039
Lupisoflavone, epigenetic control of cell wall scopoletin peroxidase by 1331
Lycopersicon, non-esterified fatty acids in chloroplasts of 1813
L. esculentum,
catalase from fruit of 345
endo-β-mannanase in fruit of 3277
phase transitions in microsomal membranes from chilling-sensitive plants of 2293
Lysimachia fortunei, flavonol glycosides from 2215
Lysozyme, from kiwi fruit 2267
Lysozymes, from *Asclepias* latex 1345

M

Maackia amurensis, piperidine alkaloid from flowers of 2533
Macrodiolides, from *Penicillium* 1491
Macropanax disperum, triterpenoid saponins from 644
Macrosporin, biosynthesis of, by *Alternaria* 1621
Magnolia henryi, neolignan and biphenyl ether from 1284
Magnoliaceae 1284
Makinoa crispata, drimane sesquiterpenoids from 3377
Malate dehydrogenase, from *Cylindrotheca* 1579
Mallotus japonicus, phenol glucoside gallates from 2443
Malonyl esters of diterpenoid alcohols, from *Parentucellia* 651
Malus domestica, polyphenoloxidase from 2903
M. sylvestris
free and bound octane-1,3-diol in fruits of 157
malonated anthocyanins from 499
M. verticillata, reticuloendothelial system-activating glycan from seeds of 2609
Malvaceae 499, 695, 1503, 2609, 3525
Mammea siamensis, piscicidal proanthocyanidin polymers from 1827
Mangifera indica, triterpenoids from 1471
Mangiferin, bacterial cleavage of *C*-glucosyl bond of 1289
Manihot esculenta,
β-glucosidase from 721
lipid changes in ageing roots of 2059
variations in subunits and kinetics of RuBP carboxylase of 1043
Mannanase, from *Lactuca*,
de novo synthesis of 371
metabolic requirements for production of 363
endo-β-Mannanase from tomato fruit 3277
N-Malonyltryptophan metabolism by Chinese cabbage seedlings 2571
Mansonia altissima, sesquiterpene *ortho*-quinone from 2861
Mansonone C formation, from 7-hydroxycadalene 2861
Marine algae 71, 77, 399, 636, 647, 805, 811, 1355, 1417, 1579, 2053, 2145, 2797, 2937, 2943, 3237, 3295, 3307, 3341, 3347, 3365, 3403
seasonal variation, bioaccumulation and prevention of loss of iodine in 3307
Marrubium vulgare, flavonoid lactates from 3201
Maytenus canariensis, α-agarofurane sesquiterpene esters from 173
Medicagenic acid, from alfalfa cultures 1379
Medicago rugosa, alfalfa weevil feeding deterrent from 3311
M. sativa,
mevalonate incorporation into sterols of 465
saponins from cultures of 1379
Melaleuca alternifolia, ontogenetical changes in monoterpenoids of 1047
Melampodium, sesquiterpene lactones from 2727
Melampolides, from *Melampodium* and *Smallanthus* 2727
Meliaceae 203, 1177, 2855
Melicope triphylla, highly oxygenated flavonoids from 245
Membrane damage, by exposure to *t*-butyl hydroperoxide 1003
Menispermaceae 273, 675, 1073, 1998, 2419, 2783
Mentha, fatty acids of seed lipids from 260
Menthofurans, from *Calamintha* 79
Mercurialis leiocarpa, 2-oxo-3-pyrroline dimeric alkaloid from 960
Merendera, alkaloids and phenolics from 3217
Merremia dissecta, malonated cyanogenic glucoside from 623
Merrillia caloxylon, coumarins from 657
N-Methoxyanhydrovobasinediol, from *Gelsemium* 2827
N-Methylputrescine oxidase, from tobacco roots 1573
Metopolophium dirhodum, changes in hydroxamic acid levels of wheat caused by 447
Metzgeriales 867, 3377
Mevalonate, incorporation of, into alfalfa sterols 465
Microorganisms, steroid transformation by 7
Microsomal membranes, from chilling-sensitive tomatoes, phase transitions in 2293
Mikania, germacranolides from 527
Millettia ferruginea, flavonoids from 1897
M. racemosa, isoflavans from 913
Millingtonia hortensis, flavonol from flowers of 1555
Mollic acid α-L-arabinoside, from *Combretum* leaves 279
Molluginaceae 1767
Mollugo pentaphylla, antifungal triterpenoid from 1767
Molluscicidal
proanthocyanidin polymers, from *Mammea*, *Polygonum* and *Diospyros* 1827
saponin, from *Albizia* 863
Momordia charantia, acylglucosyl sterols from 1721
Monodera brevipes, terpenoids and alkaloids from 2489
Monooxygenase inhibition, by methylenedioxyphenyl-containing alkaloids 451
Monophenolase activity, in de-embryonated wheat half-seeds, enhancement by gibberellic acid of 341
Monoterpene production, phytochrome-mediated, in thyme seedlings 2955
Monoterpenes,
cyclopentanoid, from *Rehmannia* roots 2385
light-dependent formation of, in thyme seedlings 741
polyhalogenated, from the red alga *Plocamium* 77
Monoterpenoid glycoside, from *Hypoxis* 263
Monoterpenoids,
from *Calamintha* 79
from *Ferula* rhizomes 634
from parsley leaves 3051
of *Melaleuca* leaves, ontogenic changes in 1047

Moraceae 595, 599, 725, 917, 1776, 2197, 2823
Mosses, 1,3,5-hydroxybenzenes in 1395
Murraya paniculata,
coumarins from flowers of 293
indole alkaloids and coumarins from 2873
3-prenylindoles from 147
Mussatia, triterpene glycosides from 2773
Mycotoxins, acetylated, from *Fusarium* 83
Mylia taylorii, *nor*-seco-aromadendrane from 1261
Myoporaceae 1425, 1871
Myriophyllum verticillatum, sterols and fatty acids from 629
Myristicaceae 239, 579
Myrtaceae 1047, 1259, 1529, 3543

N
NADH-dehydrogenase inhibitor, from *Senecio* 2311
Naphthalene-carboxylic acid, from the liverwort *Pellia* 867
Naphthohydroquinones, from *Rubia* 3465
Naphthoquinone, from *Nectria* 3240
1,4-Naphthoquinones, from *Juglans* 2799
Nassauviinae, coumarins and sesquiterpenoids from 2867
Nectandra, lignoids from 1991
Nectria haematococca, naphthoquinone from 3240
Neolignans,
benzodioxan and β-aryloxy-arylpropane, from *Licaria* 3477
bicyclooctanoid, from Ocotea 661
biphenyl, from *Magnolia* 1284
from *Krameria* 1959
from *Licaria* 2209
Neomirandea, sesquiterpenoids and diterpenes from 938
Nerium oleander, triterpenes from leaves of 1187
Neurospora crassa, phosphate-repressible alkaline phosphatase from 3281
Neurotoxic principle, in *Hemerocallis*, *Stypandra* and *Dianella* 1825
Nicotiana plumbaginifolia, demethylation of nicotine in cell suspensions of 2671
N. tabacum,
accumulation of nicotine and diterpenoids in cybrids of 3015
5-*epi*-aristolochene as a precursor of sesquiterpenoid phytoalexins from 775
biotransformation of
geraniol, by cell suspensions of 1087
(*RS*)-tropic acid, in cultures of 2333
cinnamoylputrescine biosynthesis in callus cultures of 477
determination of optimal chitosan concentrations for elicitation of cultures of 2651
N-Methylputrescine oxidase from 1573
polyamines from, as radical scavengers 1589
stereochemistry of reduction of (−)-carvone with enzymes from cultured cells of 3331
tyramine feruloyl transferase from TMV-inoculated leaves of 733
Nicotine,
accumulation of, in cybrids of *Nicotiana* with *Petunia* chloroplasts 3015
demethylation of, into nornicotine in *Nicotiana* cell suspension 2671
Nitrate reductase, from spinach, effect of proteolysis on 2261
Nitrogen nutrition, and amino acid pool changes in *Cyanidium* 2891
3-Nitropropanol glycoside, from *Astragalus* 2369
Nitropropanoyl-glucopyranoside, from *Indigofera* 1251
NMR
assignments for some isoquinoline alkaloids 2833
spectroscopy, ^1H, location of glycosylation and alkylation sites in anthraquinones by 2455
Nocardia opaca, production of a ferro-phenolic complex by 415
18-Norclerodane glucoside, from *Tinospora* 273
Norsesquiterpenes,
carcinogenic, distribution of in Pteridaceae 1605
from *Ondetia* 1653
Norditerpene, cytotoxic, from *Salvia* 3542
Nothofagus, seasonal changes in carbohydrates and frost resistance in leaves of 759
Nucleases, from rye and wheat as tools for RNA analysis 1585
Nyctanthes arbortristis, iridoid glucoside from 1913
Nyssaceae 1295

O
Ochnaceae 1557
Ocotea caesia, aporphine alkaloids from 3577
O. costulatum, bicyclooctanoid neolignans from 661
Octane-1,3-diol, free and bound, from Jonathan apples 157
Oil-bodies, from seeds, procedure for isolation of 2063
Oil-body apolipoproteins, role of 3063
Okamurallene, structure revision of 2145
Oldenburgia arbuscula, sesquiterpene lactones from 3345
Olea europaea, accumulation of oleuropein derivatives in 67
Oleaceae 67, 1409, 1413, 1495
Oleate desaturation, in genotypes of sunflower seeds 2593
Oleuropein derivatives, accumulation of, during olive maturation 67
Oligosaccharides,
hexa-*O*-acyl, bitter tasting, from *Polygala* 3355
xyloglucan, from suspension-cultured sycamore cell walls 2105
Ondetia linearis, sesquiterpene lactones and norsesquiterpenes from 1653
Ononis speciosa, resorcinols and flavonoids from 161
Onopordon corymbosum, elemanolides and elemane from 1264
Onoseriolides, from *Leuceria* 271
Ophryosporus heptanthus, diterpenoids, chromenes and flavonoids from 1463
Oplopanes, from *Senecio* 1207, 2397
Orchidaceae 290, 887, 950, 1487, 1986, 2127, 2463, 3031, 3503, 3545
anthocyanin patterns in 2127
bibenzyls and phenanthrenoids in 3031
Orcinol glycoside, from *Curculigo* 1771
Oryza sativa, foliage volatiles from 2959
Ostrinia nubilalis, effects of Asteraceae lignans on the mono-oxygenase activity of 1373
Otoba parviflora, farnesyl-homogentisic acids from 579
Oxalate oxidase, in grain sorghum roots 2909
Oxamide, from *Peganum* seeds 2000
Oxepines, from *Asphodeline* 649
Oxygen, role of, in phytochemical evolution towards diversity 2545
Oxystelma esculentum, pregnane ester oligoglycoside from 1211

P
Pachypodanthium staudtii, bisnorlignans from 231
Paclobutrazol enantiomers, inhibition of celery cell growth and sterol biosynthesis by 781
PAL activity, induction of in inoculated *Dioscorea* 2621
Pallenis spinosa, sesquiterpene alcohol from 849
Palmae 2269

Panax ginseng,
biotransformation of aromatic carboxylic acids by root cultures of 483, 1859
glycosylation of phenolics by root cultures of 3009
P. japonicus, saponins from callus tissue of 1855
Pancratium biflorum, acetophenones from 3193
Panicum maximum, phosphoenolpyruvate carboxykinase from 1349
P. miliaceum, pectic polysaccharides from cell cultures of 121
Papaver somniferum,
age and tissue distribution of alkaloids in 2085
alkaloid from 2002
^{14}C-codeine metabolism in cell cultures of 1879
Papaveraceae 133, 1083, 1101, 1779, 1879, 2002, 2085, 2601, 2651
fatty acid composition of seeds from 133
Papilionaceae, see Leguminosae
Paraquat, enzymatically reduced, phenol polymerization induced by 711
Parentucellia latifolia, esters of malonic acid and diterpenoid alcohols from 651
Parsonia laevigata, lignan glycosides from 1737
Parthenium hysterophorus, pseudoguaianolide from tissue culture of 1091
Passiflora,
cyanohydrin glycosides from species of 127
non-esterified fatty acids in chloroplasts of 1813
sulphated cyanohydrin in glycosides from 1527
Passifloraceae 127, 931, 1527, 1813
cyanogenic glycosides from 931
Pastinaca sativa, furanocoumarin tolerance of phytopathogenic fungus on 2963
Patersonia, leaf flavonoid diversity in 1891
Pechuel-Loeschea, guaianolides from 3097
Pediastrum, cytotoxic polyunsaturated fatty acid from 625
Peganum harmala, oxamide from 2000
Pegolettia oxydonta, sesquiterpene lactones and terpenoid glucosides from 1949
Pelagococcus subviridis, carotenoids from 3347
Pellia epiphylla,
6,7-dihydroxy-4-(3,4-dihydroxyphenyl)-naphthalene-2-carboxylic acid from 867
Penicillins, growth promoting activity of, on *Bouvardia* cultures 2659
Penicillium megasporum, dioxopiperazine from 929
P. vermiculatum, macrodiolides from 1491
Pentenyne, phenolic, from *Hypoxis* 153
Perezia, isocedrenes from Chilean species of 1887
Peroxidase, from horseradish, tiron as a substrate for 41
Persea americana, a calmodulin from fruits of 705
P. gratissima, stereochemistry of abscisic acid from 2641
Petasites palmatus, oplopane sesquiterpenes from 3373
Petchia ceylanica, alkaloids from 3221
Petroselinum crispum, oxygenated menthatrienes of 3051
Petunia, ergostane-type steroids from 3443
P. hybrida,
flavonol and dihydroflavonol glycosides from 897
nicotine and diterpenoid accumulation in cybrids of *Nicotiana* with chloroplasts of 3015
Peyrousea umbellata, sesquiterpene lactones from 3101
Phaeophyta 215, 636, 805, 2797
distribution of fatty acids in galactolipids of 805
Phanerochaete chrysosporium, β-resorcylate from 2803
Phaseolus vulgaris,
chlorophyll-bleaching activity of lipoxygenase isoenzymes of pericarp of 1019
effect of selenium on chlorophyll biosynthesis in 3321
effect of stimulating factors on leucyl-*t*RNA synthetase from 2927
influence of light on cyclic nucleotide metabolism in 2559
4α-methylsterols from seeds of 1219
phosphoglycolate phosphate from 719
Phellinaceae 1298
Phelline comosa var. *robusta*, alkaloids from 1298
Phenanthrene-1,4-quinone, from *Sphenomeris* 1280
Phenanthrenes,
benzylated, from *Eulophia* 2463
from *Bryophyllum* leaves 2433
from the orchid *Coelogyne* 887
Phenanthrenoids, in species of orchids 3031
Phenanthropyran, 9,10-dihydro-, from *Dendrobium* 950
Phenanthropyrone, from *Coelogyne* 3545
Phenol
glucoside gallates, from *Mallotus* 2443
polymerization, peroxide catalysed, induced by enzymatically reduced paraquat 711
Phenolic
acid metabolism, in bacterial cultures 415
amide, from *Actinodaphne* 2516
biosynthesis, in buckwheat, L-phenylalanine pools available for 469
ester, from *Dendrobium* 290
fatty acid esters, from *Buddleja* stembark 2693
glycosides,
from *Curculigo* 1771
from *Hypoxis* 2807
from *Prunus* heartwood 1499
from *Strychnos* fruit 1553
Phenolics,
accumulation of, in stressed *Prunus* leaves 1363
from *Alangium* leaves 3197
from *Coix* 883
from *Merendera* species 3217
from *Salix*, chemotaxonomy of 2115
glycosylation of, by *Panax* root cultures 3009
soluble and insoluble, metabolism of in Norway spruce needles 2071
L-Phenylalanine pools, availability of, for biosynthesis of phenolics in buckwheat 469
Phenylbutanoid glycoside, from *Hypochoeris* 1919
Phenylcarboxylic acids, biotransformation of, by plant cell cultures 3335
Phenylethanone, from *Acronychia* root bark 1278
Phenylethylalcohol glycosides, hydroxycinnamic acid esters of, from *Rehmannia* 875
Phenylpropanes, from *Acorus*, allelochemical activity of 2319
Phenylpropanoid,
from *Sorbus* sapwood 1548
glycerol glucosides, from *Lilium* 3453
glycosides, from *Lilium* 301
Phenylpropanoids, from *Flindersia* stem wood 3242
Phenylpropenoids, from *Piper* roots 654
2-Phenylpropionic acid, biotransformation of, in *Panax* root culture 483
Phleum pratense, sterol from fungus growing on 771
Phloroacylphenones, in *Thryptomene* essential oil 3543
Phloroglucinols, antifungal, from *Helichrysum* 1613
Phosphatase, alkaline, from *Neurospora* 3281
Phosphatidylcholine biosynthesis, in castor bean endosperm, regulation of 2635
Phosphoenolpyruvate carboxykinase, from *Panicum*, kinetics of 1349
Phosphoglycolate phosphatase, from *Pisum* and *Phaseolus* 719
Phospholipids,
of *Crotalaria* pollen grains, changes in 999
of green marine macrophytes 3341
Phthalide glucosides, from *Gentiana* 1759
Phycomyces blakesleeanus, phytoene dehydrogenation inhibition and carotenogenesis in 1623
Phyllanthus niruri, acyclic triterpene from 1980

Phyllocladus trichomanoides, flavanocoumarins and flavanophenylpropanoids from 2477
Physostegia virginiana, iridoids from 3055
Phytoalexin analogues, flavonoid, structure/activity relations of 87
Phytoalexins,
biosynthesis of, by elicitor-treated carrot root 1843
dihydrostilbene, from *Dioscorea* 773, 2621
from potato, detoxification of, by *Gibberella* 431
sesquiterpenoid, 5-*epi*-aristolochene as a precursor of 775
Phytochemical evolution, role of oxygen in 2545
Phytochrome, participation of, in photoregulation of monoterpene production 2955
Phytoene dehydrogenation, inhibition of, and carotenogenesis in *Phycomyces* 1623
Phytotoxic alkaloid, from the fungus *Ascochyta* 923
Phytotoxin,
host-selective, from the fungus *Drechslera* 2089
production of, by *Ascochyta* infecting chickpea 2627
Phytotoxins, from *Alternaria* 73
Picea abies, metabolism of soluble and insoluble phenolics in 2071
P. engelmannii, maturational variation in needle essential oils from 765
Pimpinella diversifolia, diesters of 2-(*E*-3-methyl-oxiranyl)hydroquinone from 1531
Pinaceae 359, 765, 1237, 1743, 2071, 2617, 2681, 3073, 3185
Pinus densiflora, glucosyltransferase from pollen of 359
Piper auritum, phenylpropenoids from roots of 654
Piper brachystachyum, amides from 3039
Piperaceae 654, 3039
Piperideides, from *Achillea* 2363
Piscicidal
flavanone, from *Artemisia* 1827
proanthocyanidin polymers, from *Mammea*, *Polygonum* and *Diospyros* 1827
Pisum sativum,
asparaginase from leaves of 2275
chromatin-bound deoxyribonuclease from embryo axes of 1339
cyclic nucleotides from roots of 2243
phosphoglycolate phosphatase from 719
Pittosporaceae 3085
Pittosporum tobira, sesquiterpene glycosides from flowers of 3085
Plant growth inhibitory properties, of dihydrostilbene phytoalexins from *Dioscorea* 2621
Plantaginaceae 288
Plantago crassifolia, caffeic acid glycoside ester from 288
Platanaceae 2105, 3191
Platanus, xyloglucan from suspension-cultured walls of 2105
P. acerifolia, *C*-methyl-*C*-prenyldihydrochalcones from 3191
Platycarpha carlinoides, *ent*- and norkaurenes from 2745
Pleiotaxis rugosa, sesquiterpene lactones from 3345
Plocamium telfairiae, polyhalogenated insecticidal monoterpene from 77
Pluchea, sesquiterpenoids in genera related to 3097
P. arguta, sesquiterpenes from 3081
P. indica, terpenoid glycosides from 3369
Plumbaginales, sterol composition in, in relation to Caryophyllidae 143
Plumeria obtusa, pentacyclic triterpenoids from 3143
Poaceae, see Gramineae
Podocarpaceae 495, 1167, 2477
fossil resin of extinct species of 1167
Podocarpus, anthocyanidin 3-neohesperidosides from receptacles of 495
Podolepis, pyrones and lignans from species of 3497
Polanisia trachysperma, external leaf flavonoids from 303
Polyacetylenes,
from *Artemisia* 2687
from *Leuzea* 2697
from *Pterocaulon* 2497
Polyamine oxidase,
from maize seedling cell walls 45
from oat shoots 2045
in primary barley and oat leaves 2255
Polyamines, as radical scavengers and ozone damage protectants 1589
Poly(A)polymerase, *de novo* synthesis of
in germinated wheat 1031
in mung bean hypocotyls 1037
Polyethylene glycol, effect of, on protein extraction 1569
Polygala amarella, bitter hexa-*O*-acyl tetrasaccharide from 3355
Polygalaceae 3355
Polygodial, synthesis and accumulation of, in *Polygonum* cultures 1631
Polygonaceae 469, 1631, 1827
Polygonales, sterol composition in, in relation to Caryophyllidae 143
Polygonum hydropiper, polygodial synthesis by cultures of 1631
P. stagninum, piscicidal proanthocyanidin polymers from 1827
Polypeptides, concanavalin A-binding, in jackbean 333
Polyphenol oxidase,
from apple 2903
from spinach, purification of with Triton X-114 1321
Polyphenolic gylcosides, from *Pseudotsuga* 1237
Polyphenols,
from *Pyrola* 607
inhibition of α-acid oxidase by 1327
Polypodiaceae 1225
Polypodium glycyrrhiza, steroidal glycosides and flavonoids from 1225
Polyporaceae 193
Polysaccharide,
containing D-*arabino*-hexulosonic acid, from the fungus *Cyttaria* 1645
reticuloendothelial system-activating, from *Malva* seeds 2609
Polysaccharides,
bioactive, from plants 2877
of cucumber cell walls, stress-induced changes of 389
pectic, from cell cultures of maize and millet 121
with immuno-stimulating activity, from *Calendula* 2379
Polyscias scutellaria, triterpene glycosides from 1539
Polysiphonia lanosa, lipid metabolism in 399, 2053, 3295
Pongamol, in enol form, in *Tephrosia* 591
Populus, isopentenyl cinnamates from buds and propolis of 871
Porella cordaeana, volatiles and pinguisane sesquiterpenoids from 3383
P. navicularis, sesquiterpenoids and diterpenoid from 1661
Porphyra umbilicalis, reaction of hydrogen peroxide with ferredoxins from 3265
Postia bombycina, *seco*-guaianolide and other sesquiterpene lactones from 3127
Pregnane
ester oligoglucoside, from *Oxystelma* 1211
triglycoside ester, from *Dregea* 1273
Pregnanes, from plants, review of 3255
Premna japonica, isoferuloylrhamnopyranosyliridoids from 3069
P. odorata,
diacylrhamnopyranosyliridoids from 3063
iridoid glycoside caffeoyl esters from 513

3-Prenylindoles, from *Murraya*, biogenetic aspects of 147
8-Prenylluteone, from *Erythrina* 2522
Primula pulverulenta, flavone and chalcone from farina of 295
Primulaceae 295, 825, 2215
Proanthocyanidin
alloside, from the fern *Davallia* 891
dimers, from *Dalbergia* bark 2183
polymers, piscicidal and molluscicidal, from *Mammea*, *Polygonum* and *Diospyros* 1827
Procyanidins,
dimers and trimers of, from *Pseudotsuga* 1743
polymers of, from *Pseudotsuga* 3185
triflavanoid, from medicinal birch bark 3487
Prolamins, from oat seed, *N*-terminal sequences of 2565
Proline distribution, in water-stressed and unstressed barley leaves 419
Prophenol oxidase, from *Dacus* cell cultures 1805
Prosopis juliflora, terpenoid diketone from 278
Proteaceae, cyanogenesis in 821
Protein
kinase, from germinated barley seeds 385
phosphorylation, cAMP promoted, of coconut milk 329
Proteinase inhibitor, from *Artocarpus* seeds 725
Proteins,
legumin-like, from *Ginkgo* 1389
storage, from *Avena* seeds 2565
Prunus, isoflavone 5-glucoside from 1560
P. amygdalus, 8-methoxykaempferol 3-sophoroside from pollen of 1901
P. avium, accumulation of *o*-diphenols in stressed leaves of 1363
P. grayana, phenolic glucosides from 1499
Pseudoguaianolides, see Sesquiterpene lactones
Pseudomonas amygdali, cytokinins from culture filtrates of 2603
P. andropogonis, biosynthesis of rhizobitoxine by 1617
Pseudotsuga menziesii,
maturational variation in needle essential oils from 765
polyphenolic glycosides from inner bark of 1237
procyanidin dimers and trimers from inner bark of 1743
procyanidin polymers from 3185
Psiadia trinervia, antimicrobial flavonoids from 2323
Psilanthus, chlorogenic acids and caffeine as possible taxonomic criteria in 829
Psophocarpus tetragonolobus, fatty acids and triacylglycerols in developing seeds of 2303
Psorospermum febrifugum, xanthonolignoids from 2483
Pteridaceae 1605
Pteridium aquilinum, chemical assay of ptaquiloside from 1605
Pteridophyta 63, 891, 1225, 1605
Pterocarpan biosynthesis, in soybean 113
Pterocarpus marsupium,
anthochlor pigments from heartwood of 2529
aurone glycosides from 1287
Pterocaulon, polyacetylenes from 2497
Pulicaria paludosa, sesquiterpenoids, flavonoids and phenols from 2717
Putrescines, cinnamoyl-, biosynthesis of in *Nicotiana* cultures 477
Pyranodihydrobenzoxanthones, from *Artocarpus* 599
Pyrethrum santolinoides, sesquiterpene lactones from 268
Pyridine, from the toadstool *Clitocybe* 1133
Pyrola incarnata, polyphenols from 607
Pyrolaceae 607
α-Pyrone,
from *Emericella* 1546
geranyl, from *Diplacus* leaf resin 3493
Pyrones, from *Podolepis* species 3497
Pyrus communis, malonated flavonol glycosides and 3,5-dicaffeoylquinic acid from 663

Q
Qingdainone, from *Isatis*, identical to candidine 3547
Quassinoid glycoside, antimalarial, from *Eurycoma* 2857
Quercus spicata, pentacyclic triterpenes from 3437
ortho-Quinone, formation on silica gel of, from 7-hydroxycadalene 2861
Quinones, abietane, from *Rabdosia* 189
Quinovic acid glycosides, from *Guettarda* 199

R
Rabdosia coetsoides, *ent*-kaurene diterpenoids from 2753
R. eriocalyx, diterpenoids from 855, 2427
R. flexicaulis, *ent*-kaurene diterpenoids from 3534
R. henryi, diterpene from 3536
R. inflexa, diterpenoids from 851, 2423
R. japonica,
diterpenoids from 1163
tetrameric derivative of caffeic acid from 2447
R. kunmingensis, *ent*-kaurene diterpenoids from 3405
R. liangshanica, diterpenoids from 1671
R. lophanthoides, abietane quinones from 189
R. rosthornii, diterpenoids from 3235
R. umbrosa, *ent*-kaurenoids from 1691
R. weisiensis, diterpenoids from 1978
Radical scavengers, polyamines as 1589
Randia dumetorum,
saponin from 1544
triterpenoids from 276
R. uliginosa, triterpenoid saponins from 575
Ranunculaceae 919, 1521, 1561, 1967, 2511
Rauwolfia, sarpagine-type alkaloid from 961
R. serpentina, improved raucaffricine production by cell cultures of 491
Reducing activity, of *Rhizobium* bacteroids 2913
Reductase, ascorbate free radical, interaction of, with sulphhydryl reagents 715
Rehmannia glutinosa,
cyclopentanoid monoterpenes from 2385
glycosides from shoot and root cultures of 2331
hydroxycinnamic acid esters of phenethylalcohol glycosides from 875
iridoid glycosides from 2149, 2331, 2705
Rengyosides, from *Forsythia* fruits 1495
Resorcinols, from *Ononis* 161
β-Resorcylate, from *Phanerochaete* 2803
Reticuloendothelial system, potentiating glycan, from *Malva* seeds 2609
Rhabdodendraceae 2355
Rhabdodendron, chemosystematics of 2355
Rhamnaceae 305, 1563, 3155
Rhizobitoxine, biosynthesis of, by *Pseudomonas* 1617
Rhizobium leguminosarum, reductant and energy level of bacteroids of 2913
Rhodomelaceae 1417, 2145, 3365, 3403
Rhodophyceae/Rhodophyta 71, 77, 399, 647, 805, 1417, 2053, 2145, 2937, 3237, 3295, 3365, 3403
distribution of fatty acids in galactolipids of 805
Ricinus communis,
phosphatidylcholine biosynthesis in endosperm of 2635
starch synthase and branching enzyme from endosperm of 1809
RNA,
initiator transfer-, from *Lupinus* seeds 2039
polymerase activity of, enhancement of by cAMP 701
Roemeria hybrida, X-ray crystallography of alkaloid from 1779

Rolandra fruticosa, sesquiterpene lacones from 1937
Rosa davurica, taxifolin apioside and hydrolysable tannin from 2177
R. laevigata, dimeric ellagitannins from 2451
R. rugosa, antimicrobial sesquiterpene from damaged leaves of 425
Rosaceae 157, 425, 631, 1276, 1363, 1499, 1548, 1560, 1901, 2177, 2451, 2903
Rubia cordifolia, anthraquinones and naphthohydroquinones from 3465
Rubiaceae 199, 276, 575, 829, 1099, 1381, 1544, 1550, 1773, 1989, 2333, 2467, 2659, 2667, 3465
RuBP carboxylase, in cassava cultivars, variations in subunits of 1043
Russulaceae 3519
Rutaceae 147, 245, 293, 509, 585, 621, 657, 663, 677, 799, 839, 943, 1061, 1229, 1278, 1281, 1517, 1627, 1717, 1909, 1992, 2777, 2873, 2901, 3242, 3558, 3562, 3574

S
Salicaceae 871, 2115
Salix, phenolics in Finnish species of 2115
Salvia anastomosans, abietane diterpenoids from 1681
S. candelabrum, abietane diterpenoids from 1685
S. fruticulosa, abietane diterpenoids from 567
S. melissodora, *ent*-clerodane diterpenoids from 561
S. miltiorrhiza, abietane diterpenoids from 3139
S. pratensis, lupeol derivative from 2206
S. prionitis,
cytotoxic norditerpene from 3542
diterpenes from 177, 2846
S. texana, flavone and flavanone from 2871
Sanguinaria canadensis, lipids from elaiosomes of 2601
Sapogenins,
steroidal, from *Cordyline* 3171
from *Solanum* 2509
Saponaria vaccaria, pentasubstituted xanthone from 3572
Saponins,
dammarane and oleanane, from *Panax* callus tissue 1855
from *Albizia* 863
from alfalfa callus and suspension cultures 1379
from *Cyclamen* 825
from *Randia* 575, 1544
30-noroleanane, from *Akebia* callus tissues 2663
steroidal,
from *Agave* 2787
from *Lilium* bulbs 3163
triterpenoid,
from Araliaceae 644
from *Centipeda* 1197
from *Clematis* 2511
from *Diploclisia* 2783
from *Guaiacum* fruits 2169
from *Macropanax* 644
from *Randia* fruits 575
from *Schefflera* 644
from *Thladiantha* 1711
Sapotaceae 1365
Sarcocapnos crassifolia subsp. *speciosa*, benzylisoquinoline alkaloids from 251
Saussurea involucrata, guaianolides from 3395
Schefflera impressa, triterpenoid saponins from 644
Schisandra sphenanthera, lignan from 1774
Schisandraceae 1774
Schizaeaceae 63
Scopoletin peroxidase, epigenetic control of, in *Lupinus* 1331
Scrophularia ningpoensis, iridoids from 2701
Scrophulariaceae 109, 571, 651, 875, 1601, 1778, 2149, 2213, 2315, 2331, 2385, 2701, 2705, 2844, 3227, 3493
Secale cereale, nuclease from, as tool for RNA analysis 1585
Secalotriticum, alkali solubility of lignins from 1401
Secoiridoid glucosides,
from *Gentiana* 2199
from *Jasminum* 1413
from *Ligustrum* 1409
Secoiridoids, possible intermediacy of 6-hydroxyloganin in biosynthesis of 2971
Secoisolancifolide, from *Actinodaphne* 1905
Sedoheptulose digallate, from *Cornus* 3469
Sedum album, flavonol glycosides from 2187
Selenium, effect of, on chloropyll biosynthesis in mung bean 3321
Selenocystathionine synthesis, enzymology of, in selenium-accumulating plants 51
Senecio,
eremophilanes from 1149
seco-eremophilanes from species of 3532
pyrrolizidine alkaloid variability in 1635
S. leptolobus, NADH-dehydrogenase inhibiting sesquiterpene from 2311
S. linifolius, furanoeremophilanes from 3093
S. mexicanus, oplopanes from 1207, 2397
Sesquiterpene
alcohol, from *Pallenis* 849
-coumarin ethers, from *Ferula* 3389
esters,
β-agarofurane, from *Maytenus* 173
from *Ferula* 3389
fucopyranosides, from *Carthamus* 1263
glucosides, from *Hypochoeris* 1919
glycosides, from *Pittosporum* flowers 3085
Sesquiterpene lactone glycosides,
from *Crepis* 2403
from *Sonchus* 3399
guaianolides, from *Proustia* 2867
Sesquiterpene lactones,
biogenetic-type synthesis of, in *Artemisia* 107
biologically active, from *Inula* 2093
elemanolides, from *Onopordon* 1264
eremophilanolides,
from *Hertia* 3231
from *Senecio* 1149
eudesmanolides,
from *Artemisia* 2505
from *Calostephane* 1433
from *Abutilon* 3525
from *Achillea* 1765
from *Aristolochia* 3233
from *Artemisia* 1535, 2163, 2723, 3121
from *Balsamita* 1115
from *Calea* 2415, 2735
from *Centaurea* 2405
from *Eremanthus* 1441
from *Geigeria* 3105
from *Helianthus* 745
from *Helipterum* 517
from *Inula* 1763, 2093
from *Leuceria* 271
from *Melampodium* 2727
from *Oldenburgia* 3345
from *Ondetia* 1653
from *Pegolettia* 1949
from *Peyrousea* 3101
from *Pleiotaxis* 3345
from *Postia* 3127
from *Pyrethrum* 268
from *Rolandra* 1937
from *Smallanthus* 2727

from *Stevia* 3526
from *Vanillosmopsis* 1441
from *Viguiera* 2409
germacranolides,
from *Centaurea* 1975
from *Mikania* 527
glaucolides, from *Achillea* 3528
guaianolides,
from *Artemisia* 2731
from feverfew 940
from *Pechuel-Loeschea* 3097
from *Saussurea* 3395
from *Stevia* 1925, 1931, 2841
heliangolides,
from *Brickellia* 2741
from *Stevia* 1931
from *Viguiera* 2737
pseudoguaianolides,
from *Anisopappus* and *Antiphiona* 1155
from *Parthenium* tissue culture 1091
synthesis of 3530
witchweed germination stimulating 2315
Sesquiterpene
ortho-quinone, formation of, from 7-hydroxycadalene, on silica gel 2861
synthesis, by *Polygonum* cultures 1631
xylosides, from *Iphiona* 2202
Sesquiterpenes,
antimicrobial, from damaged rose leaves 425
carotane, from *Ferula* 1649
chamigrene, bromochlorinated, from *Laurencia* 3365
eremophilane, from *Solidago* 3229
seco-eremophilane, from *Senecio* 3532
eudesmane, from *Laggera* 3097
from *Baccharis* 531
from *Canella* 297
from *Daucus* 639
from *Dictyopteris* 636
from *Eremophila* 1425
from *Euryops* 843
from *Ferula* 634
from *Helichrysum* 543
from *Lactarius* 1427, 2501
from *Neomirandea* 938
from *Perezia* 1887
from *Pluchea* 3081
from *Proustia* 2867
from *Senecio* 1149, 1207, 2311, 2397
from *Stevia* 265
from *Trixis* 2155
from *Waitzia* 1943
furoeremophilane,
from *Hertia* 3231
from *Senecio* 3093
furoeudesmane, from *Epaltes* 3097
guaiane, from *Lactarius* fruit bodies 2501
halogenated, from *Laurencia* 1417
NADH-dehydrogenase inhibiting, from *Senecio* 2311
oplopane, from *Petasites* 3373
Sesquiterpenoid
alcohol, from *Abies* 3073
coumarins, from *Ferula* 1761
phytoalexins, 5-*epi*-aristolochene as a precursor of 775
Sesquiterpenoids,
daucane, from *Ferula* 2711
drimane, from the liverwort *Makinoa* 3377
eudesmane, from *Epaltes* 1973
from *Abies* 3073
from *Centaurea* 2204
from *Cymbopogon* 936
from *Porella* 1661
from *Pulicaria* 2717
in alpine firs of British Columbia 2681
juvabione-related, from *Abies* 2617
nor-, from the liverwort *Mylia* 1261
pinguisane, from *Porella* 3383
Setaria italica, flavone *O*- and *C*-glycosides from 2471
Shikimate pathway, effects of glyphosate on 695
Shikimic acid,
from *Dendrobium* 290
incorporation of into *p*-hydroxybenzoic acid in *Lithospermum* cultures 2643
Shikonin biosynthesis, enzymatic regulation of, in *Lithospermum* cell cultures 1873
Sideritis distans, diterpene from 1976
S. incana × *S. angustifolia* hybrids, verification of, by flavonoid analysis 2141
S. javalambrensis, *ent*-16-hydroxy-13-*epi*-manoyl oxide from 1267
Silybum marianum, flavonoids from flowers of 1751
Simaroubaceae 2857
Sinapis alba, reversible enzymatic transesterification between wax esters and sterols in roots of 2931
Skeletonema costatum, intraspecific variations in the fatty acids of 811
Smallanthus, melampolides and kaurane diterpenes from 2727
Smeathmannia, cyanohydrin glycosides from species of 127
Solanaceae 345, 431, 477, 715, 733, 737, 775, 795, 897, 1077, 1087, 1569, 1573, 1589, 1755, 1769, 1813, 2293, 2333, 2509, 2514, 2631, 2651, 2671, 3015, 3277, 3331, 3443, 3507
Solanapyrone, production of, by *Ascochyta* infecting chickpea 2627
Solanum,
acetylcholinesterase-inhibitory activity of steroidal glycoalkaloids from 2631
non-esterified fatty acids in chloroplasts of 1813
S. glaucophyllum, distribution of calcitriol in plants and cell cultures of 795
S. meridense, sapogenins from 2509
S. muricatum, carbohydrate content and sucrose metabolism in developing fruits of 737
S. nigrum, quercetin 3-glycosides from 1755
S. tuberosum,
ascorbate free radical reductase from 715
detoxification of phytoalexin from, by *Gibberella* 431
effect of polyethylene glycol on protein in cultures of 1569
Solidago wrightii, eremophilane sesquiterpene from 3229
Sonchus asper, sesquiterpene lactone glycosides and ionone glycosides from 3399
Sorbus aucuparia, dihydrosinapic aldehyde from sapwood of 1548
Sorghum bicolor, polymorphism of α-amylases in 2921
S. vulgare, oxalate oxidase in roots of 2909
Sphaeropsidaceae 1303
Sphagnaceae 1725
Sphagnum magellanicum, hydroxybutenolide from 1725
Sphenomeris biflora, cytotoxic phenanthrene-1,4-quinone from 1280
Sphenone-A, structure, synthesis and cytotoxicity of 1280
Spinacia oleracea,
effect of proteolysis on nitrate reductase from 2261
polyphenol oxidase from 1321
reaction of hydrogen peroxide with ferredoxins from 3265
Spirostanes, from *Kallstroemia* 1985
Spodoptera littoralis, *Teucrium* diterpenoids with anti-feedant activity against 1069
Sporopollenin, from *Lilium*, ^{13}C NMR spectral analysis of 751

Starch branching enzyme and synthase, from germinating castor bean 1809
Sterculiaceae 2861
Steroid transformation, by microorganisms 7
Steroidal glycosides,
distribution of in *Solanum* plants and cell cultures 795
from caudex of *Yucca* 1215
from *Cyanchum* root 3175
from *Lilium* 3453
from sweet-tasting fern 1225
Steroids,
ergostane-type, from *Petunia* 3443
from *Calotropis* 2859
from the red alga *Hypnea* 3237
Sterol
biosynthesis,
in celery, inhibition of by enantiomers of paclobutrazol 781
inhibitors of, as probes for studying plant and fungal growth 1791
composition, in Plumbaginales and Polygonales 143
Sterols,
acylglucosyl, from *Momordica* 1721
from *Eria* 1487
from *Gynostemma* 1271
from *Myriophyllum* 629
from strawberry fruit 1276
in alfalfa, incorporation of mevalonate into 465
4α-methyl-, from *Phaseolus* seeds 1219
reversible enzymatic transesterification between wax esters and 2931
with an aromatic B ring, from the fungus *Epichloe* 771
Stevia alpina, guaianolides and heliangolides from 1931
S. sanguinea, guaianolides from 2841
S. serrata, prochamazulene sesquiterpene lactones from 3526
S. subpubescens, longipinenes from 265
S. yaconensis, guaianolides from 1925
Stichococcus bacillaris, extracellular organic production by 2993
Stigonemataceae 1565
Stilbene dimer, from *Chlorophora* 917
Striga asiatica, sesquiterpene lactones which stimulate germination of 2315
Strophanthus intermedius, biotransformation of digitoxigenin by cell suspension cultures of 1093
Strychnos, indole alkaloid from 2221
S. nux-vomica, phenolic glycosides from fruit of 1553
o-Succinylbenzoic acid formation, from *iso*-chorismic acid in anthraquinone-producing cell cultures 1381
Sucrose metabolism, in developing pepino fruit 737
Sugar
acid, in polysaccharide from *Cyttaria* 1645
composition, of cucumber fruit cell walls, stress-induced changes of 389
Sulphated cyanohydrin glycosides, from *Passiflora* 1527
α-Sulphinyldisulphides, biologically active, from onion 2373
Swertia macrosperma, bisxanthone from 3569
Synthesis,
of natural coumarins 227
of natural 1,3-diarylpropanes 239
of natural 2-oxo-3-pyrroline dimeric alkaloid 960
of *Sphenomeris* phenanthrene-1,4-quinone 1280

T
Tabernaemontana divaricata, pentacyclic triterpenoid phytoalexin biosynthesis in cultures of 2981
Talaromyces derxii, *p*-hydroxybenzoic acid derivatives from 655
Tanacetum, coumarins from tissue cultures of 3003
T. parthenium, guaianolides from 940
Tannin biosynthesis, and predation damage in *Cryptomeria*, air pollution effects on 439
Tannin, hydrolysable, from *Rosa* roots 2177
Taxodiaceae 439
Tectona grandis, anthra- and naphthoquinones from 1258
Tephrosia, flavonoids and isoflavonoids from 3207
T. pumila, flavonoids from seed pods of 1291
T. purpurea, pongamol as enol structure in 591
Terminal oxidase, activity of, during ripening of Hamlin orange 2901
Terminalia bellerica, triterpenoids and their glucosides from 2769
Terpenoid
diketone, from *Prosopis* leaves 278
glucosides, from *Pegolettia* 1949
glycosides, from *Pluchea* 3369
Terpenoids,
from *Anisopappus* and *Antiphiona* 1155
from *Bixa* seeds 3159
from *Calocedrus* leaves 1173
from *Euphorbia* 1695, 1699
from *Geigeria* 3105
from *Helichrysum* 1119
from *Monodora* seeds 2489
from *Pittosporum* flowers 3085
Tetranortriterpenoids,
from *Azadirachta* 203
from *Entandrophragma* 2855
Tetraprenyltoluquinols, from *Cystoseira* 215
Teucrium, antifeedant clerodane diterpenoids from 1069
T. canadense, *neo*-clerodane diterpenoids from 3539
T. kotschyanum, *neo*-clerodane diterpenoids from 2763
T. polium subsp. *vincentinum*, chloro- and *neo*-clerodane diterpenoids from 1453
Thalflavine, from *Thalictrum* 1967
Thalictrum flavum, alkaloid from 1967
Thermopsis chinensis, (+)-5,6-dehydrolupanine from 958
T. lupinoides, alkaloid production in green callus of 2341
Thiophene polyines, biosynthesis of, in *Chaenactis* hairy root cultures 93
Thiophenes, from *Ambrosia* 3523
Thiosulphinates, biologically active, from onion 2373
Thladiantha hookeri var. *pentadactyla*, triterpenoid saponin from 1711
Thryptomene saxicola, phloroacylphenones in essential oil of 3543
Thunbergia, iridoids from 3059
Thymelaeaceae 221
Thymus vulgaris,
light-dependent formation of glandular trichomes and monoterpenes in 741
phytochrome-mediated monoterpene production in seedlings of 2955
Tiliacora racemosa, diphenylbisbenzylisoquinoline alkaloid from 675
Tinospora cordifolia,
furanoid diterpene glucoside from 2419
18-norclerodane glucoside from 273
Tiron, as a substrate for horseradish peroxidase 41
Torrentin, revision of structure of 2505
Triacylglycerols,
changes of, in ripening grapes 3301
from *Craterellus* 3047
in A race strains of *Botryococcus* 2349
molecular weight distributions of, in developing winged bean seeds 2303
Tricholomataceae 1133
Trifolium repens, dihydroxycyclopentadienone from seeds of 2499

Trigonella foenum-graecum, stereochemistry of 4-hydroxyisoleucine from 1835
Trilliaceae 2601
Trillium sessile, lipids from elaiosomes of 2601
Tris-norsesquiterpene lactone, from *Calea* 2735
Triterpene
  acid, anti-ulcer, from *Cussonia* 2851
  alcohol, from *Clausena* 943
  glycosides,
    from *Guettarda* 199
    from *Mussatia* 2773
Triterpenes,
  acyclic, from *Phyllanthus* 1980
  cytotoxic, from *Diospyros* 1541
  from *Botryococcus* 1467
  from *Ilex* fruits 1479
  from *Nerium* leaves 1187
  pentacyclic, from *Quercus* 3437
  taraxerane-type, from *Euphorbia* 1193
Triterpenoid
  acids, from *Cunila* 1483
  bisglycoside, from *Clematis* 2511
  glucosides, from *Terminalia* 2769
  glycosides, from *Polyscias* 1539
  phytoalexins, biosynthesis of in *Tabernaemontana* 2981
  saponins, see Saponins
  trisaccharides,
    from *Acacia* 207
    from *Centella* 2852
Triterpenoids,
  antifungal, from *Mollugo* 1767
  cycloartane, from *Euphorbia* 1982
  fernane, from *Euphorbia* 3149
  from *Artocarpus* latex 2197
  from *Bryophyllum* leaves 2433
  from *Buxus* roots 2848
  from *Euphorbia* 1695, 1699
  from *Ganoderma* 193
  from *Mangifera* 1471
  from *Randia* 276
  from *Salvia* 2206
  from *Terminalia* 2769
  oleanene and ursene, configurational studies of 1703
  pentacyclic,
    from *Plumeria* leaves 3143
    from *Zizyphus* 3155
  tetranor-,
    from *Azadirachta* 203
    from *Entandrophragma* 2855
Triticum,
  changes in hydroxamic acid levels in aphid-infested plants of 447
  ingestion by aphids of DIMBOA from 2307
T. aestivum,
  alkali solubility of lignins from 1401
  de novo synthesis of poly(A)polymerase in germinated embryos of 1031
  enhancement by GA_3 of monophenolase activity of 341
  trypsin inhibitor from kernel of 1307
T. vulgare, nuclease from, as tool for RNA analysis 1585
Triton X-114, as a tool for purifying polyphenol oxidase 1321
Trixis grisebachii, trixanolides and germacratrienes from 2155
(*RS*)-Tropic acid, biotransformation of in cultures of *Coffea*, *Datura*, *Eucalyptus* and *Nicotiana* 2333
Tryptic inhibitory activity, in wild and cultivated crucifers 755
Trypsin inhibitors,
  degradation of, during soybean germination 1013
  from Araceae 3019
  from wheat kernel 1307
Tylophora indica, alkaloids from 3513
Tylopilus neofelleus, ergosta-7,22-dien-3β-ol glycoside from 945
Tyramine feruloyl transferase, from TMV-inoculated tobacco leaves 733
Tyrosinase activity, in de-embryonated wheat half-seeds, enhancement by gibberellic acid of 341

U
Udoteaceae 2917
UDP-glucose:phenol-β-D-glucosyltransferase, from papaya fruit 2281
UDPG glucose:4-(β-D-glucopyranosyloxy)benzoic acid glucosyltransferase, from *Pinus* pollen 359
Ulmaceae 2861
Ulmus americana, conversion of 7-hydroxycadalene from, into mansonone C on silica gel 2861
Ulva pertusa, enzyme system which produces long chain aldehydes in 407
Umbelliferae 227, 634, 639, 781, 1531, 1649, 1761, 1805, 1817, 1843, 1955, 2711, 2852, 2963, 2989, 3051, 3389
Uncaria elliptica, (−)epicatechin production by callus cultures of 1099
Uvaria pandensis, indolosesquiterpenes from 2217

V
Vanillosmopsis erythropappa, sesquiterpene lactones from 1441
Velloziaceae, alkanes of foliar epicuticular waxes of 1105
Verbascoside, production of, in *Eremophila* callus tissue 1871
Verbena hybrida, malonated anthocyanins from 1507
Verbena officinalis, cornin biosynthesis in 97
Verbenaceae 97, 513, 1258, 1507, 1913, 3063, 3069, 3265
Viburnum suspensum, iridoid glycosides from 2393
Vicia angustifolia, β-cyano-L-alanine synthase from 2285
V. faba,
  acetylated flavanol glycosides from leaves of 1993
  jasmonic acid analogues from 339
Vigna radiata,
  acetohydroxamate as inhibitor of allantoinases from 47
  de novo synthesis of poly(A)polymerase in hypocotyls of 1037
  effects of cortisol on permeability of membranes of 319
V. unguiculata,
  airborne volatiles from 421
  α-galactosidases from 2047
Viguiera laciniata, sesquiterpene lactones, flavanones and diterpene acid from 2409
V. sylvatica, heliangolides from 2737
Vinca difformis, 2-dimensional NMR study of alkaloid from 308
Virola multinerva, 1,3-diarylpropanes from 239
Vitaceae 3301
Vitis vinifera, triacylglycerol changes in ripening fruits of 3301
Volatiles,
  airborne, of cowpea 421
  from celery and celeriac 1817
  from *Feijoa* peel oil 1529
  from marine brown algae 636
  from *Medicago*, exhibiting alfalfa weevil feeding deterrency 3311
  from parsley leaves 3051
  from rice seedlings 2959
  from the liverwort *Porella* 3383

W
Waitzia acuminata, labdanes and sesquiterpene from 1943
Wax esters, epicuticular, from maize 165
Waxes, epicuticular,
from Velloziaceae, alkanes of 1105
in *Encephalartos* species 3027
Withanolide,
from *Datura* leaves 1769
19-hydroxy-, from *Jaborosa* 2514
Wyethia, flavonoids from 501

X
Xanthone glucosides, from *Halenia* 2819
Xanthones,
bis-, from *Swertia* 3569
from Guttiferae 967
from *Haploclathra* 2211
pentasubstituted, from *Saponaria* 3572
prenylated, from *Cudrania* 595, 2823
Xanthonolignoids, from *Psorospermum* 2483
Xeromphis obovata, coumarin glucoside from 1550

Y
Yeast extract, induction of benzofuran accumulation in *Ageratina* cultures by 2999
Yohimbine-type alkaloids, from hairy-root cultures of *Catharanthus* 1383
Yucca gloriosa, steroidal glycosides from caudex of 1215

Z
Zamiaceae 2793, 3027
Zanthoxylum, chromone from 1992
Z. rubescens, amides from 839
Zea mays,
cytokinin oxidase from kernels of 1313
epicuticular wax esters from 165
L-glutamine and D-glucose uptake by developing endosperms of 3271
non-esterified fatty acids in chloroplasts of 1813
pectic polysccharides from coleoptiles of 121
polyamine oxidase from 45
polymorphism of α-amylases in 2921
Zingiberaceae 1143
Zizyphus jujuba, pentacyclic triterpenoid from 3155
Z. nummularia, cyclopeptide alkaloid from 305
Z. rugosa, cyclopeptide alkaloids from bark of 1563
Zygophyllaceae 1985, 2000, 2169

PHYTOCHEMISTRY

AIMS AND SCOPE

Phytochemistry is the international journal of plant biochemistry, with an editorial staff of seven and an editorial board of 24 distinguished scientists. It is the official organ of the Phytochemical Society of Europe and is published monthly by Pergamon Press. It is intended to cover research on all aspects of pure and applied plant biochemistry, especially that which leads to a deeper understanding of the factors underlying the growth, development and metabolism of plants and the chemistry of plant constituents. The journal is currently divided into eight sections, as indicated below, but papers which cut across these sections or which are on any other aspect of plant biochemistry will also be considered.

Review articles are published at regular intervals and they cover almost every aspect of the subject from primary metabolism and regulation of plant growth through plant enzymology to natural product chemistry. They deal with significant new areas of research and are intended to command the interest of the general reader. Authors should consult the editors before preparing such articles, by submitting an outline of their proposed review.

The *Growth and Metabolism* section contains papers on: plant molecular biology, nucleic acids, proteins, recognition molecules; photosynthesis, carbohydrate, lipid and nitrogen metabolism; plant membranes, cell walls, growth hormones and their structure–activity relationships; all aspects of plant enzymology, including the description of new enzymes; and the general biochemistry of plant growth from seed germination, leaf development, flowering and fruiting to seed ripening.

The Ecological Biochemistry section contains papers on: biochemical adaptations in plants to environmental stress; pollination biochemistry; plant toxins and their effects on animals, phytoecdysones, antifeedants; herbivory, plant defence and insect feeding preferences; utilization of plant substances by animals; and all aspects of biochemical plant pathology, including the production of phytotoxins and phytoalexin elicitation.

The *Biosynthesis* section principally contains papers on the biosynthesis of secondary plant constituents in both microbial systems and in higher plants. It may also include papers on the genetic control of biosynthesis, on biosynthetic inter-relationships and on the methodology of biosynthesis.

The *Cell Culture and Biotechnology* section is devoted to biochemical aspects of plant cell and tissue culture, and especially to the accumulation, production, biosynthesis, turnover and enzymology of secondary constituents. Papers on plant biotechnology are also welcomed, e.g. those concerned with biomass production, the utilization of plant products as alternative fuel sources, etc.

The *Chemotaxonomy* section contains papers on the comparative biochemistry of plants. These may range from distributional studies on low molecular weight compounds in a group of fungi, algae or higher plants to the amino acid sequencing of seed lectins. Papers on infraspecific chemical variation are also included here.

The *Plant Chemistry* section is arranged in an ordered sequence and contains papers on: growth substances, macromolecules, primary metabolites, terpenoids, polyketides, phenylpropanoids, flavonoids, alkaloids and compounds of mixed biosynthetic origin. Authors investigating the chemistry of a given plant species should aim to publish their results in a single manuscript rather than in a series of papers, describing each new compound as it is found. The structural analysis of new plant substances is now so routine that papers reporting a single novel compound of expectable structure (e.g. a new triterpene fatty acid ester) are rarely acceptable, unless other novel information on the plant is included.

The *Short Reports* section contains concise papers representing significant contributions to scientific knowledge which can be adequately included in up to two printed pages (i.e. 6–8 pages of mss.). They need to be as fully documented and as accurate as full papers and are presented in the same style. Reports of known compounds, however rare, from new plant sources will not generally be accepted *unless* they have real chemotaxonomic or other chemical and biological significance.

Book Reviews are published regularly and the editor-in-chief welcomes the submission to the Reading office of new books for review. Symposia and Society announcements will be published, at the discretion of the editors. Preliminary communications and letters to the editor will not, however, be considered.

Authors should consult the latest Instructions list (see *Phytochemistry* Vol. 29, No. 1, pp. 1–5, 1990) before preparing their manuscripts. All contributions must be in English and should be submitted to the editor-in-chief, Prof. J. B. Harborne, Plant Science Laboratories, The University, Reading, RG6 2AS, U.K. Authors in North America may send their manuscripts for onward transmission to Prof. G. Cordell, Program for Collaborative Research in the Pharmaceutical Sciences, College of Pharmacy, University of Illinois at Chicago, Chicago, IL 60612, U.S.A.

SEND FOR A FREE SAMPLE COPY

TETRAHEDRON

The International Journal for the Rapid Publication of Critical Reviews and Original Research in Organic Chemistry and Related Disciplines, Especially Bio-organic Chemistry

Founded jointly by **SIR ROBERT ROBINSON** and **R B WOODWARD.**
Chairman of the Executive Board of Editors for Tetrahedron Publications:
SIR DEREK BARTON FRS, *Department of Chemistry, Texas A and M University, College Station, Texas 77843-3255, USA*
Co-ordinating Editor: **T STEPHEN,** *8 Lewis Close, Risinghurst, Headington, Oxford OX3 8JD, UK*

Tetrahedron publishes experimental and theoretical research results of outstanding significance and timeliness in the field of organic chemistry and its application to related disciplines especially bio-organic chemistry.
Areas covered by the journal include the many facets of organic reactions, natural products, studies of mechanisms and various aspects of spectroscopy.
Contributions take the form of full papers and, in order that the service provided to the international community of organic chemists may be as comprehensive as possible, *Tetrahedron* also publishes specially commissioned review articles -- *Tetrahedron Reports,* and collections of original papers -- *Tetrahedron Symposia-in-Print.*

A Selection of Papers
E J COREY, F J HANNON & N W BOAZ (USA), Coordinatively induced 1,4-diastereoselection in the reaction of acyclic α,β-enones with organocopper reagents. A new type of organocopper reagent.
W OPPOLZER, A J KINGMA & G POLI (Switzerland), Asymmetric 1,4-additions of Gilman reagents to α,β-disubstituted (*E*)-enoylsultams / "enolate" protonations.
D R TUETING, A M ECHAVARREN & J K STILLE (USA), Palladium catalyzed coupling of organostannanes with vinyl epoxides.
A KRIEF, W DUMONT, P PASAU & Ph LECOMTE (Belgium), Stereoselective synthesis of methyl (1*R*) *trans*- and (1*R*) *cis*-hemicaronaldehydes from natural tartaric acid: application to the synthesis of *S*-bioallethrin and deltamethrin insecticides.
P J KOCIENSKI, C J LOVE, R J WHITBY, G COSTELLO & D A ROBERTS (UK), A total synthesis of (+)-zoapatanol and demethyl-ORF13811.
A OSUKA, K MARUYAMA & S HIRAYAMA (Japan) Quinone-linked and quinone-capped porphyrins. Their one-pot photochemical synthesis and fluorescence behavior.

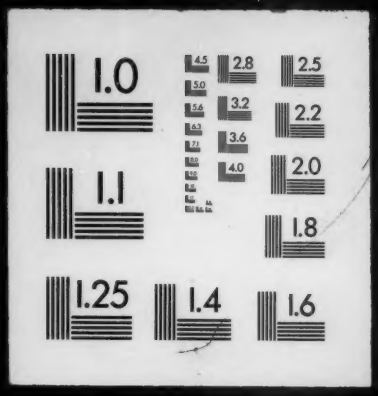
Indexed/Abstracted in: *Current Contents, Chemical Abstracts, Excerpta Medica, CABS, BIOSIS Database, PASCAL-CNRS Database*

(00232)
Subscription Information (including *Tetrahedron: Asymmetry*)
1990: Volume 46 (36 issues)
Annual subscription (1990) DM 5950.00
Two-year rate (1990/91) DM 11305.00
ISSN: 0040-4020

PERGAMON PRESS
Member of Maxwell Macmillan Pergamon Publishing Corporation
Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, UK
Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, USA

Advertising rate card available on request. Back issues and current subscriptions are also available on microform.
The DM prices shown include postage and insurance. For subscription rates in the Americas, Japan, UK and Eire please contact your nearest Pergamon office. Prices and proposed publication dates are subject to change without prior notice.

Printed in England by BPCC Wheatons Ltd, Exeter


1.0
1.1
1.25
1.4
1.6
2.8
3.2
3.6
4.0
2.5
2.2
2.0
1.8